Clinical Lectures

Delivered to the Students of the

MANCHESTER ROYAL INFIRMARY

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LECTURE III.

THE DIAGNOSIS OF THE LATE STAGE OF PULMONARY PHTHISIS.

GENTLEMEN,—In our last lecture we were concerned with the diagnosis of the early stage of phthisis; to-day I wish to speak to you in reference to the diagnosis of advanced cases of that disease. Unfortunately, it is usual to consider three stages of phthisis—the first, or that of consolidation; the second, or that of softening; and the third, or that of excavation. You must however remember that, except in the early stage of the disease, it is very rare to meet with cases of phthisis where the lungs present only one of these changes. Usually all three stages are present in the same lung, one part of the organ presenting the condition of consolidation, in another portion softening has taken place, and in a third we have a cavity of greater or less size at the same time in existence. This fact of all three stages being present at the same time is a consequence of the tubercular process in the lungs not remaining limited for a long period to a single focus. The tuberculosis in an ordinary case of phthisis doubtless commences at one spot, but in a short time, the length of which varies with the acuteness or chronicity of the case, the primary focus gives rise to secondary ones in its immediate neighbourhood. As the tendency is for each of these foci to run through the stages of consolidation, softening, and excavation, you can readily understand how it is that, except in the early stage of phthisis, we find the different stages all present at the same time in one lung. In the acute cases of phthisis these secondary foci are present at an early stage of the disease, and softening and excavation ensue in them at an early period. In the chronic cases, on the other hand, the process remains for a longer time limited to the primary focus, and the secondary foci develop at a later period, whilst softening ensues also more slowly than in the acute cases.

From the above facts you will readily understand why the diagnosis of the last stage of phthisis is usually far more readily made than we have seen to be the case with the early stage of the disease. In the advanced stages we commonly find the symptoms and physical signs of phthisis well marked. But although this applies to the majority of cases, it does not apply to all. We are very frequently surprised to find on the post-mortem-room table much more extensive phthisical changes in the lungs than we had expected, from the result of our clinical examination, to discover. We frequently find that the physical signs do not correspond to the pathological changes in the lungs. We also occasionally meet with cases where the appearance of the patient leads us to expect marked evidences of phthisis, but where, on careful examination of the chest, the indications of phthisis are found to be very much less evident than we had expected simply from the appearance of the person and from the history of the case. And, again, we occasionally meet with cases where the physical signs of phthisis are far more marked over the lower part of one lung than over the apex, and where in consequence we are inclined to regard the case as one of basal phthisis—of phthisis commencing and being most marked at the lower part of the lung. But when we have an opportunity of examining such cases after death, we may be surprised to find that the disease is really much more advanced and of older date in the apex than in the lower part of the lung. We discover in the upper part of the lung cavities—may be of large size—which had given rise to no definite physical signs during life. So that although phthisis can usually be readily diagnosed in its advanced stage, we not unfrequently find advanced stages of the disease in parts of the lungs where they had not been suspected during life, although the chest had been carefully examined. It is a well-recognised fact that phthisical cavities frequently exist without giving rise to signs which allow of their recognition; and it is also true that cavities are very frequently diagnosed without there being sufficient data for such a diagnosis to be made.

We will consider the physical signs which may be present in the case of pulmonary cavities, and we shall find that the cases are rare where absolutely characteristic and pathognomonic signs of such cavities exist. There are especially four conditions which have a very marked influence on the signs which a pulmonary cavity may present. These are the *size* of the cavity, its *position*, the *condition of the surrounding lung*, and the presence or absence of a *free communication with the bronchi*. We will see how each of these conditions may influence the signs presented by a cavity.

The size of cavities varies considerably, and you can readily understand that a cavity the size of a pea is likely to give rise to signs which differ from that the size of a hen's egg. In the former case we have no signs really dependent upon the cavity; what signs are present are the result of the condition of the surrounding lung tissue; whereas in the case of the larger cavity the space would directly influence the physical signs, unless the other conditions (position, condition of surrounding lung, &c.) were unfavourable to the manifestation of those signs. It is not possible to say what size a cavity must be in order that we may recognise it, because the other conditions (position, &c.) may be favourable or unfavourable in any case.

The position of a cavity has a marked influence on the physical signs to which it may give rise. You can readily understand how different must be the physical signs presented by a cavity the size of a walnut, situated immediately beneath the pleura in the apex of a lung, and one of the same dimensions seated in the centre of the lower lobe. In the former case it is directly accessible to percussion and auscultation, in the latter case it is not. The condition of the surrounding lung tissue might likewise be expected, on *a priori* grounds, to have a like influence to the position of the cavity on the physical signs. In the case of a medium-sized cavity surrounded by an extensive area of consolidated lung we usually have the physical signs dependent upon the consolidation rather than upon the cavity. And, again, a cavity surrounded by a small zone of consolidated lung, which alone intervenes between the cavity and the chest wall, is more likely to transmit sounds to the physician's ear and to be affected by percussion than would be the case if the same sized cavity were surrounded by a zone of healthy not consolidated lung.

The influence which the presence or absence of a free communication with the bronchial tubes must exert on the physical signs which a cavity may present will be more clearly understood when we come to speak in detail of the signs of cavities. It will, however, suffice for the present purpose to say that, if a cavity exists in the lungs and is shut off from any communication with the bronchial tubes, there is not likely to be any transmission and modification by the cavity of sounds which originate in the bronchial tubes or higher respiratory passages, such as would be probable if a free communication with the bronchi existed. We will now consider more in detail the various signs which a cavity may present, and also how those signs may be modified according as the above indicated conditions vary.

The chest wall over a cavity is, as a rule, retracted. In some cases the retraction is but very slightly marked, and by carefully watching some cases of phthisis we may see that the retraction, previously existing, may become less marked where a cavity has formed. In some rare cases the chest wall has been noted[1] as more prominent over a large cavity, there being a very slight bulging as compared with the corresponding region of the healthy side. The most common feature, however, to observe on inspecting a chest where a cavity exists is retraction with diminished movement over the affected part.

The vocal fremitus over a cavity varies considerably, as a

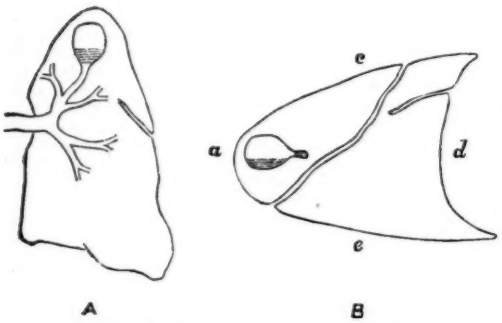
[1] Walshe: Diseases of the Lungs, fourth edition, pp. 10 and 423.

rule, in consequence probably of the existence of consolidation around the cavity, it is increased.

The percussion note over a cavity varies remarkably, since so much depends upon the position of the cavity, its size, and the condition of the surrounding lung. If you look at these two preparations you will have little difficulty in understanding the difference which is met with as a result of percussion over cavities. In the one preparation we have a cavity situated at some distance from the pleural surface, and surrounded by consolidated lung tissue. In such a case you can readily understand that dulness on percussion would be the most probable result. In the other preparation you see a large cavity situated immediately beneath the pleura, and can imagine that a probable result of percussion would be not dulness, as in the former case, but hyper-resonance, the note being of a more or less marked tympanitic quality. In many cases of cavities of the lung, probably in the majority of instances, we find only dulness on percussion over the seat of the cavity. This is seen where the cavity is small, and where, even if it is of considerable size, it is surrounded by consolidated lung tissue. On the other hand, some variety of tympanitic resonance is not unfrequently met with as a result of percussion over a cavity. The superficial position of a cavity is favourable to the development of such a percussion note. According to the size and position of a cavity, the note may be distinctly tympanitic, or of only a shallow tympanitic quality. Rarely is a cavity sufficiently large and favourably placed to give rise to an amphoric note. Such resonance is far more frequently associated with pneumothorax than with pulmonary excavation.

A cavity which under one set of conditions gives rise to a tympanitic note may, under different conditions, give

FIG. 1.

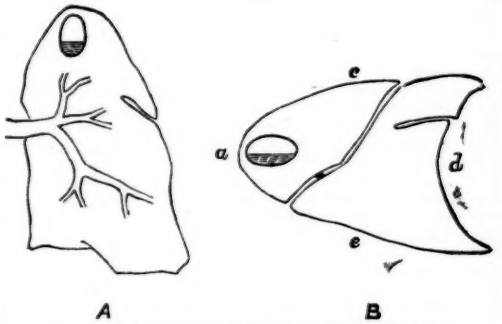


A, Vertical lateral section of the lung. B, Vertical antero-posterior section of the lung:—*a*, Apex. *d*, Diaphragmatic surface. *c*, Anterior border. *e*, Posterior.

rise to some alteration in the pitch of that note. One such change is that first pointed out by Wintrich. That observer noticed that the percussion note over a cavity was frequently altered in pitch according as the patient kept the mouth open or closed. He observed that the note became lower pitched when the mouth was closed, and sometimes lower still when the nostrils as well as the mouth were closed. This change in pitch cannot be demonstrated in all cases, since for its production it is necessary that the cavity is in free communication with the bronchi. Where a cavity exists which does not communicate with the neighbouring bronchi, the pitch of the percussion note is the same whether the patient has the mouth open or closed. In some cases the alteration in pitch is only manifest when the patient is lying down, whilst it is not evident when he is sitting up; or it may be detected when he is sitting up, but not when he is in the recumbent posture. This difference, as pointed out by Moritz and Gerhardt, probably depends upon the position in which the cavity communicates with the bronchi and upon the presence of fluid contents in the cavity, which contents are able in one position to occlude temporarily the orifices of the bronchi, but, with an alteration of position of the patient, the contents change position and leave the orifices of the tubes free. Let us suppose that in the case of a cavity in the apex the communication with the bronchi was at the lowermost part of the cavity, as represented diagrammatically in the illustration. (Fig. 1.) If the cavity contained some liquid contents the communication between the cavity and the bronchi would be shut off in the erect posture (A), but there would be a free communication between those parts in the recumbent posture (B) in consequence of the alteration in the position of the fluid contents of the cavity. Consequently, in such a case we should expect no alteration of the pitch of the percussion note when the patient opened and closed the mouth whilst he was in the erect posture, but such an alteration ought to ensue when he assumed the recumbent one. If, on the other hand, the bronchi opened into the cavity on its posterior aspect, instead of below, the condition of affairs would be the exact reverse of the above, and we should expect a change of pitch when the patient was in the erect, but not when he was in the recumbent, posture.

In exceptional instances the tympanitic percussion note over a cavity may be replaced by a toneless note where the space becomes filled with secretion, and that dull note may give place again to a tympanitic one when the secretion is expectorated. In still rarer cases of a large cavity with much secretion simple change of position alters the percussion note, so that a part of the chest which, for instance, was tympanitic in the recumbent, becomes dull when the patient assumes the erect posture. Eichhorst[2] states that in some cases the tympanitic note detected over a cavity becomes higher pitched on a deep inspiration, and lower with expiration. The effect of a deep inspiration may not merely raise the pitch of the tympanitic note, but cause the tympanitic note to be replaced by a dull one (Wintrich). Another sign, which was pointed out by Gerhardt, is in rare cases detected over a cavity. This is the alteration of the pitch of the percussion note by simply changing the posture of the patient, such alteration being a consequence

FIG. 2.



A, Vertical lateral section of the lung. B, Vertical antero-posterior section of the lung:—*a*, Apex. *d*, Diaphragmatic surface. *c*, Anterior border. *e*, Posterior.

of the shape of the cavity becoming altered by the different position, which the fluid contents of the cavity assumes. You are aware probably that we obtain the same pitch in the tympanitic note by percussing over a cylindrical vessel as over one of an ovoid shape, provided that the orifice of the two vessels is of the same size, and also the length of the column of air contained in them is the same. But if the column of air is shortened in either vessel, then the pitch of the percussion note which can be obtained by percussing over the orifice of that vessel is raised. A similar condition has been found by percussing over cavities. If there is an oval-shaped cavity in the apex of a lung, the long axis of the cavity corresponding to the long axis of the lung, and if that cavity contains a medium quantity of fluid contents, the length of the column of air, which has an influence on the pitch of the percussion note, will be greater in the recumbent (Fig. 2, B) than in the erect posture (Fig. 2, A). And consequently the pitch of the note will be higher when the patient is in the erect than when in the recumbent posture. If, on the other hand, the oval-shaped cavity has its long axis running in an antero-posterior direction, and not corresponding to the long axis of the lung, then the pitch of the tympanitic percussion note, which may be elicited over it, will be higher when the patient is in the

[2] Lehrbuch der Physikal. Untersuchungsmeth. innerer Krankheiten.

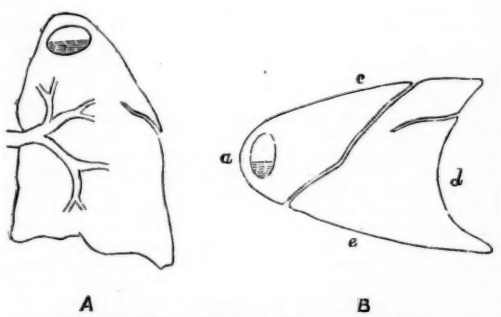
recumbent (Fig. 3, B) than when he is in the erect or sitting posture (Fig. 3, A).

We thus see that percussion over a cavity may reveal simple dulness or it may show tympanitic resonance. The pitch of the tympanitic note, we have also learnt, may possibly vary with respiration, or according as the patient keeps the mouth closed or open, or with the change of posture of the patient. You must not expect to find these variations of pitch easily demonstrated or of frequent occurrence. Many of the phenomena above described are only rarely to be found, and require the ear to be well educated before they can be recognised.

Cracked-pot sound can frequently be elicited over a cavity, but it is a sign of very little diagnostic value. It may be found over a cavity, over simple consolidation of the lung, and also frequently over the pliable chests of perfectly healthy people, especially children.

The auscultatory signs in the late stage of phthisis vary considerably. This variation in part depends upon the different stages in which the phthisical process is present at various parts of the lungs. Over some part of the chest we may find signs indicative of the early stage of the disease; in other parts those resulting from softening of tubercular foci, and over other portions may be signs due to excavation. Not only, however, do we meet with this variety of signs in the late stage of phthisis in consequence of different stages of the disease being present at the same time in the lungs, but we also find that the auscultatory signs audible over cavities differ remarkably in different cases. In other words, the auscultatory phenomena associated with cavities are not the same in all cases. In many cases the difference in the signs is explicable by the difference in the size of the cavity, by its position, by the

FIG. 3.



A, Vertical lateral section of the lung. B, Vertical antero-posterior section of the lung:—*a*, Apex. *d*, Diaphragmatic surface. *c*, Anterior border. *e*, Posterior.

condition of the surrounding lung, or by the relation of the cavity to the bronchial tubes. But in other cases we are unable to explain why a particular cavity, which we have an opportunity of examining on the post-mortem-room table, did not give rise to more definite and characterestic signs. We not uncommonly meet with cavities which have not given rise to characteristic signs during life, and whose presence have not been diagnosed, and also in many such cases the position, size, and surroundings of the cavities are such as would lead us to expect that very definite signs would be present during life. This great variation in the auscultatory signs is but one cause of the difficulty in diagnosing the presence of a cavity. Another cause of difficulty arises from the fact that simple consolidation of the lung, especially where such consolidation is in the immediate neighbourhood of large bronchial tubes, may give rise to signs of the same nature as those which may be heard over a cavity. There are very few signs which are pathognomonic of a cavity, and cavities very frequently exist without giving rise to those few signs. The diagnosis of the presence of a cavity in a particular part of the lung is often made in consequence of the presence of auscultatory phenomena which, the physician forgets, may result from consolidation alone or from a consolidated area which is commencing to undergo softening. We may find simply weak respiration (i.e., a respiratory murmur which corresponds more to weak vesicular breathing than to respiration of the bronchial type) or complete silence over a cavity even of considerable dimensions. In such cases the diagnosis by auscultation of the presence of the cavity, it is needless to say, is an impossibility. In other cases the breath sound is obscured by the presence of a large number of râles. The râles, which are suggestive of the presence of a cavity, are those of large size and of gurgling character. The large gurgling râles may in rare cases be accompanied by metallic tinkling, a phenomenon which is rarely met with over a pulmonary cavity, but is of more frequent occurrence in hydro- or pyo-pneumothorax. Instead of weak or obscured respiration, we not unfrequently find over pulmonary cavities some form of blowing and hollow breathing. The more marked the hollow element is, the more suggestive the breath sound is of the presence of a cavity rather than of consolidation of the lung. The respiration may be bronchial, tubular, cavernous, or, in some rare cases of large excavations, amphoric. The acceptance of blowing and hollow breathing as indicative of the presence of a cavity requires caution. We may get the respiration presenting both the blowing and, to a certain extent, the hollow qualities over a part of the lung which is the seat of simple consolidation, when that consolidation is in the neighbourhood of large bronchial tubes. The significance of the sign as indicative of excavation depends upon the degree of the hollowness, and also upon the position at which such respiration is audible. If we have distinct hollow blowing breathing audible over the extreme lung apex, where no large bronchial tubes exist, the inference as to the presence of a cavity in the apex is a very strong one. On the other hand, similar respiration heard over the interscapular region, in the neighbourhood of the spine of either scapula, has not nearly the same significance, in consequence of the proximity of the large bronchi.

Amphoric respiration, with or without metallic tinkling, is occasionally but rarely audible over a pulmonary cavity. A phthisical excavation is rarely large enough, and probably its wall is usually not sufficiently smooth, to give rise to these phenomena. When, however, they are heard, and pneumothorax can be excluded from the diagnosis, their presence is conclusive proof of the existence of a pulmonary cavity.[3] There are some other auscultatory phenomena which occasionally are audible in cases of pulmonary cavities, which, although rare, should be mentioned. Seitz has described a "metamorphosing murmur" as being not unfrequently heard over cavities. It consists in a harsh sound being present during about the first third of the inspiration, whilst during the remaining two-thirds of that division of the respiration we get a weak bronchial respiration or simply râles. The expiration in these cases is as a rule of weak bronchial character. Although Seitz considers this breath sound of considerable value as indicating the presence of a cavity, it has been described as being present in a case of acute croupous pneumonia, where, as was proved on post-mortem examination, no cavity existed. A gurgling rhonchus synchronous with the heart's action may occasionally be heard by auscultation over a cavity which is in close proximity to the heart. In some very rare cases such rhonchi are audible when we stand at some distance from the patient. Such a case I am able, through the kindness of Dr. Moritz, to show you to-day. Even those of you who are some distance away can hear a distinct gurgle, which is synchronous with the heart's action. Another sound which has been heard over a pulmonary cavity is a high-pitched systolic murmur. One such case Gerhardt had an opportunity of examining after death, and the only source for the production of the murmur appeared to be a still patent dilated bloodvessel, which ran through the cavity.

Vocal resonance varies considerably in cases of pulmonary cavities, and is therefore a sign of comparatively little value. Whispering pectoriloquy is a sign very frequently audible over a cavity, but it may be very marked over simple consolidation of the lung without there being even dilatation of the bronchial tubes.

Succussion sounds are occasionally audible over pulmonary cavities, but cavities are rarely sufficiently large to give rise

[3] It must be understood that this applies only to *perfect* amphoric respiration. Since the above was written I have met with a case where there was a breath sound which had much of the character, but was not perfectly amphoric, and where on post-mortem examination there was consolidation of the lung, but no large excavation to account for the sign. *Perfect* amphoric respiration is undoubtedly very rarely heard, but, when audible, probably does indicate either a large pulmonary excavation or pneumothorax.—T. H.

to these signs. They are more frequently audible over hydro-pneumothorax or pyo-pneumothorax than over large excavations in the lung substance.

It will be thus seen that there are but few signs which when present are conclusive evidence of the presence of pulmonary cavities, and also that very frequently pulmonary cavities exist without giving rise to signs which are pathognomonic of their existence. We need to carefully bear in mind that simple consolidation of the lung often gives rise to signs which are mistaken for those associated with the existence of cavities. As a rule, however, although the diagnosis of the presence of a cavity is difficult, we are able to say whether the destructive changes in the lung in a particular case are advanced or not; but in some cases we are unable to be certain even on this point, because very extensive destruction of the lungs may be present, and yet give rise to very insignificant physical signs. Another point of considerable importance bearing on this same subject is the fact that in advanced cases of phthisis we may have the physical signs much more marked at the base than at the apex, and yet when we have an opportunity of examining such cases after death we find that the disease is much more advanced at the apex than at the base. Such cases are very apt to be mistaken for cases of primary basal phthisis; but in reality they are only cases where the signs of the cavities in the upper parts of the lungs are few and indefinite, whilst the signs of those existing at the base and of the softening which is taking place there are more evident. Cases of basal tubercular phthisis—i.e., phthisis commencing at the lower part of a lung—do occur, but they are probably more rare even than is supposed.

ABSTRACT OF

The Harveian Lectures

ON THE

SURGERY OF THE KIDNEYS.

Delivered before the Harveian Society of London,

By J. KNOWSLEY THORNTON, M.C.,

SURGEON TO THE SAMARITAN FREE HOSPITAL.

LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—I have now arrived at a very important branch of my subject—renal tumours. Of osteomata and hæmatangiomata I have nothing to say; the very occurrence of true bone tumours is doubtful, and the small vascular tumours, which resemble telangiectasis of the liver, have never been seen of sufficient size to render them surgically important. The simple fibroma often attains a great size, and so do the mixed forms. The fibro-cyst, which furnishes the largest specimens, is probably always a degenerative form of the simple fibroma, the cavities being the result of breaking down of central portions of the growth. The tumours in which there is an admixture of muscular tissue also attain an enormous size (myo- or rhabdo-fibroma). Those in which fat is present are, like the cystic tumours, products of degenerative change in the simple fibroma; they often also attain a very great size. Fatty transformation of the kidney, as recorded by various pathological observers, is a totally different condition, due to increase of fat in the adipose-areolar tissue, which pushes its way into the kidney through the hilum; it is usually the result of suppurative disease in one kidney. Its only surgical importance arises in a case in which the other kidney becoming the seat of some disease, curable by surgery, the patient practically only has one kidney, and the surgeon should be able to recognise the fatty transformation of the opposite organ by abdominal exploration. Nothing is known as to the causes, and but little as to the symptoms, of these simple tumours; they probably produce no symptoms till their size becomes a source of discomfort, or a cause of damage to the affected or to neighbouring organs, by their weight and pressure. Their recognition must chiefly depend upon their evident connexion with the kidney, their slow growth, and the absence of symptoms above referred to. When they attain a sufficient size to make them a serious inconvenience, a source of danger to the kidney they are attached to, or to other organs, they may be removed by abdominal section, either with or without the kidney from which they grow, according to the closeness of their connexion with the organ.

Adenomata are of two kinds, the papillary and the glandular; the former commonly projects from the lining membrane of the tubules and Malpighian capsules; the latter is more common in the cortex. It is very rare for either to attain a size to call for surgical interference. I have put them in a group by themselves, because their minute structure closely resembles that of the ovarian adenomata, and these latter growths are certainly on the borderland of malignancy. I have operated successfully in a case of hydronephrosis, associated with calculus, both lesions being produced by a papilloma growing at the pelvic end of the ureter. Sarcomata are not only among the commonest of renal tumours, but also the most varied in their clinical characters, some being so malignant that they should never be touched, while others are so slow in growth, so slow in invading neighbouring parts, and so slow in recurring, if they ever do recur, that they present the most favourable cases for successful surgery. Renal sarcoma is commoner in children than in adults, and is also usually in them of a very malignant type. I have never myself operated upon a child for renal sarcoma. I have refused to do so several times, and I have seen several such operations, and each has impressed strongly upon my mind the uselessness of the procedure. With adults the exact reverse seems to be the case; in them renal sarcoma is often of slow growth, is slow in invading neighbouring tissues, and is also slow in recurrence. The difference is to be sought, first, in the varieties of sarcoma most common in early life and in the adult; and, secondly, in the portion of the organ first invaded by the disease. In children the cell element predominates, while in adults there is a large amount of dense intercellular substance. In children the whole organ is much more often infiltrated, while in the adult the disease commonly attacks the capsule, leaving often the secreting structure uninvaded. Of the five adults I have operated upon for sarcoma three recovered and two died. Four of the patients were females, aged respectively fifty-three, twenty-five, forty-two, and thirty-six, and the fifth was a male aged twenty-two. In one of the cases the tumour was large, and had not involved the kidney at all; it had been suggested that it originated in the supra-renal capsule, but against this was the fact that the capsule of the kidney was continued over the surface of the tumour. My first fatal case was a cysto-sarcoma, weighing ten pounds, of mixed kind, containing round cells, myxomatous tissue, and many bloodvessels, occurring in a woman aged twenty-five; it had penetrated the diaphragm and pleura. The second was that of a married woman, aged forty-two, and the growth was a spindle-celled sarcoma commencing in the capsule near the hilum, and invading the interior of the pelvis. The history of the first of these cases is sufficiently long to make it probable that an early operation might have saved her. In the last case the slow growth, with no sign of infection of other organs, in spite of the early hæmorrhage, shows, I think, clearly, that a successful result would have attended operation, at any time before the kidney became fixed by extension of the growth into the surrounding structures, and the health broken down by repeated hæmorrhages and constant suffering.

If we now attempt to summarise our imperfect knowledge of renal sarcoma, we find that it is most common in children, is in them often congenital, in this case going on to a rapidly fatal termination, from quick increase in size, involvement of neighbouring tissues and organs, and general marasmus; that when it makes its appearance later, but still in childhood, it runs a much more rapid course than in the adult, more speedily involves surrounding tissues, and is therefore rarely seen at a time when operation can be undertaken with any reasonable chance of completely eradicating the disease; that even when detected quite early, and before there is any sign of its having involved the other tissues, its removal is commonly followed by such speedy recurrence that the operation is barely justifiable. Such recurrence, moreover, is very extensive in its outbreak, and usually leads to an amount of suffering altogether beyond that which is seen when the disease is allowed to run its natural course in the kidney. Turning now to the adult, we find that the disease is most common in the

middle period of life, is usually slow and insidious in its early course, and frequently progresses slowly, and often painlessly, for years, before it spreads beyond the kidney; a certain amount of aching and pain in the situation of the affected kidney, occasional attacks of hæmaturia, and a hard swelling in the renal region, which is from its weight apt to become more mobile than a normal kidney, and is therefore likely to be regarded as an innocent condition, being the only symptoms which are at all common. It is worthy of special note that with two large tumours of the capsule (or of the supra-renal capsule) there was no hæmorrhage; indeed, the only symptom in each case was the tumour, till its size caused indigestion, nausea, &c. There was never any urinary symptom in either case to direct attention to the kidney. The tumours most likely to be mistaken for renal tumours are retro-peritoneal cysts, often quite impossible to diagnose from hydronephrosis, omental cysts, distended gall-bladder surrounded by adhesions, enlarged spleen, ovarian tumour, subperitoneal fibro-myoma and solid sarcoma of mesentery, and retro-peritoneal tissue. Lymphadenomata, though not uncommon in the kidneys, are always a part of a general disease, and, except in the matter of differential diagnosis, quite outside the province of surgery. Of carcinoma, the encephaloid variety is most common, then the scirrhous, then the colloid. Epithelioma and cylindroma are so rare as to be almost curiosities. We have, of course, nothing to do with the secondary forms of the disease, which attack both organs, but only with primary cancer affecting one kidney. This is not nearly so common as sarcoma, and is essentially a disease of the adult, and occurs chiefly in people past middle life. The causes appear to be heredity, the long-continued irritation of calculus, accidental blows, and injuries. The symptoms are a combination of those of calculus, of those of the early stage of tubercle, and of those of sarcoma. I think Newman puts it well when he says, "The differences in the symptoms of sarcoma and those of cancer will be found to be one of degree rather than of kind." Renal carcinoma frequently infiltrates the whole organ, but it also occurs with the appearance of a capsule; this is, however, deceptive, for microscopic examination shows that there is a gradual transition from the cancer to the healthy renal epithelium, extending through the apparent limiting capsule. This was well seen in the only case of primary cancer that I have met with, in a widow aged fifty-three, from whom I removed a kidney affected with encephaloid cancer. Adding this case to the sarcoma cases, I have six operations for malignant disease, with four recoveries and two deaths. Lumbar nephrectomy is essentially the same operation as lumbar nephrotomy, but with the addition of the enucleation and removal of the kidney through the lumbar incision. The objections to it are: 1. The small space available for incision in most cases. 2. The danger of wounding a pleura with a low insertion. 3. The danger of wounding the colon or the peritoneum, and of fouling the latter without being aware of the accident. 4. The possibility of not being able to find the kidney at all, an accident which has happened in a large number of cases, and to experienced London surgeons. 5. The possibility of removing a single kidney, without knowing that the patient has only the one. 6. The impossibility of noting the condition of the other kidney and ureter. 7. The fact that it is only suitable for a limited number of cases, it being impossible to remove much-enlarged kidneys, through any incision that can be confined to the loin. I have only once performed the operation, and then under peculiar circumstances. I had made a median abdominal incision to explore the pelvic contents, and found a disorganised kidney. It was impossible to remove it through this median incision without extending it to a great length, and so, having opened the kidney through the loin to explore its interior, I extended this into the usual lumbar incision, and thus removed the kidney.

The great point advanced in favour of lumbar nephrectomy is that up to the present time it has been more successful than the abdominal method; but this is because the latter has usually been a last resource in cases too bad to be operated on by the lumbar method. There are, however, some conditions in which the lumbar operation may properly be performed, notably cases in which a lumbar incision and drainage having failed, the extirpation has to be undertaken with a fetid sinus, already extending from the loin into the interior of the kidney; also in some cases of wound of the kidney, to which I shall refer later. For the performance of lumbar nephrectomy various operators advise various incisions, but each case must really be dealt with on its own merits, according to the size of the kidney, the absence or presence of adhesions, and the configuration of the individual. When the kidney is thoroughly exposed, it must be enucleated from its adipose areolar capsule, or from its true capsule, according to circumstances. When reached the vessels should be tied as close to the kidney as possible, *en masse* if they are normal, and separately if they are more numerous. The ureter should, whenever possible, be loosened from its bed, secured with forceps close to the kidney, and then ligatured further off, a sponge being placed under it when it is divided between the forceps and ligature, in case a few drops of its contents should foul the wound. Its free end should be fixed in the lips of the external wound by a suture, or safety pin, a rubber drainage-tube or two being placed alongside of it, and the wound closed round their mouths by a few points of interrupted suture, each including all the divided tissues. Before the sutures are introduced, the wound should be well dried with carbolised sponges, and then flushed with some warm antiseptic solution. If the adhesions round the vessels are very dense—sometimes they are like cartilage,—they must be carefully snipped through, bit by bit, with scissors, and the vessels tied together with some of the adherent tissue, rather than risk wounding the aorta or cava by too carefully dissecting them out. A large, thick, absorbent, antiseptic dressing, secured by broad adhesive straps, or by a many-tailed flannel bandage, is then applied. The vertical incision which I suggested in 1883, so as to avoid opening the peritoneum, I have found in practice not to answer.

Abdominal nephrectomy should be performed by the lateral incision introduced by Langenbuch, and made along the outer border of the right or left rectus, according to the kidney to be removed, as it not only gives a more easy command of the renal vessels and ureter; but it avoids almost entirely exposure of the intestines and general cavity of the peritoneum during the operation, and it gives easier access to the outer layer of the mesocolon, through which the kidney should be approached in order to avoid the vessels, which lie chiefly in the inner layer; thus by operating through the outer layer hæmorrhage is avoided, and the vascular supply of the colon is less liable to injury. The incision should begin just below the ribs, a narrow hand's-breadth from the middle line, and be carried down for about four inches, so as to admit the operator's hand without bruising the parietes. As soon as the peritoneum is open, the hand should be introduced and passed over to the opposite side of the abdomen, for the examination of the opposite kidney and ureter. A flat carbolised sponge is then introduced, to keep back and cover the intestines; a small opening is made in the outer layer of the mesocolon, and enlarged by tearing, and through this opening the size and condition as to adhesions of the kidney are estimated. When it is found that the tissues lying above the kidney are normal, the fingers can be gradually insinuated under the peritoneal covering till the aorta is reached; from it the renal artery can be traced, and then the vessels can be ligatured before the kidney is enucleated, but when, on the other hand, there is much inflammatory thickening of the tissues and adhesion, the kidney must be enucleated before the vessels can be reached and cleared. In old-standing cases of pyelitis or pyonephrosis the adhesions about the vessels and hilum are often extremely dense and thick, so that the renal vessels can only be discovered when they are cut across and bleed, and can only be secured by running a needle armed with silk under their mouths in this dense tissue. When I can I transfix and tie the vein and artery separately; in other cases I pass the silk through some part of the tissues above the vessels and tie *en masse*. I usually apply a separate fine ligature around the whole pedicle before dropping it. During enucleation each bleeding vessel should be secured by a pair of small pressure forceps, and well wrung sponges should be pushed down between the kidney and the capsule as successive portions are enucleated. The last part to separate is the ureter, and before separation its renal end should be secured by pressure forceps, then a ligature tied a little way from the forceps, and a sponge placed under it before it is divided. Whenever it is possible I enucleate it for some distance from the kidney before dividing it, so that its cut end, with the sponge under it, may be at once drawn outside the abdomen; and I afterwards fix it in the lower angle or most convenient part of the abdominal incision with a cleansed safety pin. The vessels having been secured, the sac should be carefully

sponged out. If a well-wrung sponge, pressed to the bottom of the sac, comes out fairly dry and but little blood-stained, and if the operator is absolutely certain that no fouling of the sac has occurred with the kidney contents, its edges may be allowed to drop together, and the abdomen closed without drainage. It is not advisable to suture the edges of the sac. If there is fear of oozing, or the least doubt as to the perfect asepticity of the operation, it is better to drain with a Keith's glass tube, projecting from the abdominal incision with sponge dressing, and clearance every twelve hours under the spray. If a loin opening has also been made, a rubber tube should be placed there. I treat the cases after operation exactly as I treat all other abdominal operation cases, except that I allow no opium in any form, and I avoid stimulants also. When a sedative is absolutely necessary, I give bromide of potassium and chloral, in rectal injections. Sickness I treat at first with fifteen-grain doses of oxalate of cerium in mucilage, frequently repeated; but if it continue beyond the third day, I give a few doses of white mixture, and aid its action by a small enema, and this is generally efficacious. In the absence of vomiting, I keep the bowels quiet for a week, as any disturbance in the colon must affect the intra-peritoneal wound injuriously. I now treat the ureter with tincture of iodine, then with strong corrosive sublimate lotion, and in some of the cases it has after this remained sweet, and healed quickly. The occasional absence of a second kidney, the knowledge that in one case at least (Polk's) a single kidney has been removed, the error only being discovered after the death of the patient, the importance of knowing exactly the condition of the other kidney and ureter, and the greater convenience and precision of the abdominal method, seem to me to indicate its use in all but some exceptional cases, to which I have already referred. I do not advocate the performance of abdominal nephrectomy by every tyro in surgery, neither do I recommend such to undertake any serious abdominal operation; but I do unhesitatingly affirm that, as a precise and scientific operation, there is no comparison between the abdominal operation and its lumbar rival.

In reference to the examination of the urine, I do not attach so much importance to the secreting power of the other kidney as is done by most writers on renal surgery. Still, it is well to have the urea estimated several times before operation, taking the whole quantity of urine passed in each twenty-four hours. Low specific gravity, constant presence of albumen to any amount, and, worse still, the presence of casts, are indications not to be neglected. With regard to the contrivances for obtaining the urine from one ureter, I believe they are all nearly, if not quite, as dangerous as a properly performed abdominal nephrectomy, and I leave it to those who believe in these aids to surgery to learn their use from other sources.

Injuries of the kidney and of the ureter only require to be treated on sound surgical principles to yield a very large proportion of success. The kidneys are liable to be bruised, shaken from their normal seat, crushed, ruptured, torn, cut, and penetrated by shot or bullet. The ureters are liable to be violently stretched, torn across, or to have holes made in them by knife, shot, or bullet. They are also liable to be damaged by the surgeon, in the performance of abdominal operations, and by the accoucheur, in delivery by the forceps. Most of these injuries may occur, both to the kidney and to the ureter, without external wound; others, such as those inflicted by stab or gunshot, always have an external wound, to guide us to the seat, and as to the probable extent of the injury. The mortality from traumatic lesions corresponds very closely to that following surgical procedures for the various diseases we have been considering. Let us hope that, as my results in abdominal nephrectomy show a reduction of mortality to 20 per cent., so in the new era which has dawned upon abdominal surgery a like reduction may occur in the mortality from traumatic lesions. Bruises of the kidney may lead to abscess, but the presence of organisms is necessary to the development of the latter. Peri-nephric suppuration may originate in the same way. Crush of the kidney is one of the more common traumatic lesions, from the frequency of cart or carriage-wheel accidents; in this case the kidney may be merely bruised or contused, or, it may be seriously lacerated; in either case blood may appear in the urine. Or it may be altogether separated from its vessels and ureter, a condition which would be indicated by much more severe and complete collapse, by evidences of internal hæmorrhage, by diminution of the quantity of urine, but not necessarily by the presence of blood in it, as the torn ureter quickly contracting and curling over, no urine or blood may pass down it, from the moment of the accident. If such a condition were suspected, the abdomen should at once be opened and searched. If, on the other hand, only the parenchyma of the organ is injured, there is every probability that, with rest, cold applications, and proper care, the patient will recover. The bleeding tends to cease spontaneously; and if the kidney is healthy at the time of the accident, the urine will not necessarily trouble the peritoneum. Of course, if an accident should happen to a kidney already diseased, and pyoid or putrid urine flow either into the cellular tissue or peritoneum, the results would be immediately disastrous; in the latter case probably the most speedy surgery, and flushing out and drainage of the peritoneum, would hardly save the patient. If in rupture of the kidney healthy urine escape backwards into the cellular tissue, the condition known as acute hydronephrosis is produced. Sympathetic suppression of urine may result from any of these renal injuries, but more commonly follows bilateral than unilateral injury. When it is present, the surgeon has to consider the possibility of both ureters being torn across. If a clot of blood obstruct the ureter after injury to the kidney, renal colic may be added to other symptoms. Collapse, vomiting, hæmaturia, retraction of testicle, fulness and tenderness in the flank, ecchymosis of the skin over the kidney, and possibly suppression of urine, are the symptoms of serious injury.

Penetrating wounds of the kidney, from loin stab, have not been uncommon, and the literature of the subject shows that the kidney, or a portion of it, is apt to prolapse through the wound, and that the patients are very likely to recover when left to nature, or treated on the rough principles of the past. If there is the least reason to conclude from the symptoms that adjacent organs are implicated, the abdomen should be at once opened, the site of the injury thoroughly explored, the peritoneum cleansed, and any other necessary procedure adopted. In deciding on the proper treatment to follow in any given case of renal injury, the chief points to attend to are the evidences of injury of other organs, the evidences of internal hæmorrhage, the evidences of internal escape of urine, and the possibilities of recovery, as evidenced by the general condition of the patient, if simple rest and care be the treatment. Wound of the ureter may lead to acute hydronephrosis, and may be treated by immediate incision and drainage, and by more remote nephrectomy if a fistula result; or if there be reason to suppose that the wound is small, it may be exposed and sutured, or the injured part of the ureter may be resected, and the healthy parts of the tube sutured together.

In gunshot wounds each case must be treated solely on its own merits. It must never be forgotten that in any renal injury the accumulation of blood and urine in the cellular tissue around the ureter may, by its pressure, obstruct that passage, and the possibility of obstruction to the flow of urine, by accumulation of blood-clot in the bladder, must also be borne in mind.

Gentlemen, with this hurried sketch of the nature and treatment of the traumatic lesions of the kidneys and ureters I close my lectures. No one is more conscious of their imperfections than myself. The subject has grown, and is growing so rapidly with increased experience, that it already requires at least a dozen lectures to do it justice. I have endeavoured to make these lectures as practical as possible, illustrating by my own cases, and stating frankly my own opinions, rather than searching for those of others, and giving you a compilation. I can only say, in conclusion, that if you, who have so kindly and patiently listened to me, have learnt one-half as much, or derived one-half the pleasure from listening, as I have found in the preparation, I am amply repaid for my labour.

WOLVERHAMPTON HOSPITAL SUNDAY FUND.—Alderman Wm. Edwards presided at the annual meeting of clergymen and ministers held at the Town Hall on the 12th inst. for the purpose of forming a Hospital Sunday Committee for the ensuing year. A committee was appointed. The total Hospital Sunday collections for 1889 were stated to be £624 14s. 9d., a decrease of £14 on the year.

CHOREA AND RHEUMATISM.

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THE wide divergence of opinion concerning the relationship between acute rheumatism and chorea as cause and effect is well known. While, on the one hand, many observers maintain the existence of the closest connexion between the two maladies, asserting, indeed, that of all the causes of chorea rheumatism is most efficient; others, on the contrary, hold that this connexion has been greatly over-estimated, and that the cases of chorea which can be properly attributed to acute rheumatism as their cause are comparatively few in number. This being the case, it may be of some interest to record the result of an analysis of 146 cases of chorea observed at the Westminster Hospital during seven years (1881-87), in which series the actual relationship of the chorea to acute rheumatism (along with other matters) was accurately noted. The cases are given in detail in the Westminster Hospital Reports for the years mentioned, and from the summary which I prepared for the last report the following figures are largely drawn.

I have analysed these 146 cases of chorea with the object of ascertaining the percentage of cases which could be fairly ascribed to acute rheumatism as their cause. All these cases have been taken with great care and the facts most thoroughly sifted. Of the 146 cases only 9 (6·16 per cent.) could by any possibility be attributed to acute rheumatism as their cause. That is to say, rheumatism immediately preceded the attack, or the latter occurred during convalescence from acute rheumatism; whilst all other possible causes of chorea were entirely absent in only 9 cases. In 11 cases the attack of rheumatism occurred during the course of the chorea; in 15 cases acute rheumatism had occurred at some more or less distant period, the interval varying from six years to one month. Thus, some sort of relationship other than causal existed between the attack of chorea and the acute rheumatism in 26 cases, the total number of cases having any rheumatic antecedent being 35, or 23·97 per cent. A rheumatic inheritance existed in 47 cases, 32·19 per cent. The causes assigned by the friends in 94 cases (64·38 per cent.) was nervous strain (fright, distress, and school overpressure). As regards the condition of the heart, in 20 cases a persistent systolic murmur was audible at the apex, and of these 20 cases 11 had suffered from acute rheumatism previously. A murmur, constant neither in force nor rhythm, was audible over the region of the apex in 64 cases, this murmur entirely disappearing as the patient recovered. The number of cases having a neurotic inheritance was a trifle larger than that owning a rheumatic inheritance, the former being 49, the latter 47. There was an inheritance of phthisis in 14 cases and of gout in 4. As regards age, only 3 cases were under eight; between five and ten, 34 cases; between ten and twenty, 96 cases; between twenty and thirty, 10 cases; between thirty and forty, 1 case; between forty and fifty, 1 case; between fifty and sixty, 1 case. As regards the relationship as cause and effect between acute rheumatism and chorea, the figures given above agree with the results obtained by Dr. Sturges, who gives from 5 to 8 per cent. as the average of cases of chorea arising directly from acute rheumatism. In only twenty cases (13·69 per cent.) was there evidence of damage to the endocardium, yet I find from analysis of cases of acute rheumatism that between the ages of ten and thirty 27·7 is the percentage of cases having cardiac disease due to acute rheumatism. Should the ordinary teaching on the subject be correct, it is surely strange that acute rheumatism at the very age when the heart is most liable to be affected should in the case of chorea cause such affection in barely half the number of cases. It is still commonly stated in the text-books that rheumatism is one of the most efficient causes of chorea, yet several recent observations tend to results opposed to this view. No doubt the frequent presence of a cardiac murmur has led to the assumption of valvular disease, and of previous acute rheumatism, without care having been taken to ascertain whether the murmur was constant and invariable. As stated above, a fleeting murmur was audible in 64 of the cases analysed; but in every one of these cases it had disappeared at the time of the discharge of the patient, and there was no reason whatever to believe that in any one of the cases the heart was damaged. Probably, were sufficient pains taken to investigate thoroughly the history of a series of cases of chorea, similar results would be obtained; but so long as vague pains in the limbs are admitted as evidence of rheumatism, and the mere presence of a murmur is considered satisfactory evidence of cardiac disease of rheumatic origin, for just so long will the ordinary views as to the intimate connexion between chorea and acute rheumatism be maintained. The number of cases having neurotic inheritance—49, or 33·57 per cent.—is greater than that having any other traceable inheritance. The large number of cases—94, or 64·38 per cent.—in which the disorder originated in some nervous disturbance (overwork at school, distress, shock), very significantly points to nervous stress of some sort as the most efficient cause. With regard to the other points brought out in the analysis (sex and age) comment seems unnecessary, as the results agree with facts already sufficiently well known.

The following results were obtained:—146 cases of chorea: Acute rheumatism, as cause, 6·16 per cent.; rheumatic antecedents, not causal, 23·97 per cent.; nervous disturbance, as cause, 64·38 per cent.; rheumatic inheritance, 32·19 per cent.; neurotic inheritance, 33·56 per cent. Heart: Structural heart disease, 13·69 per cent.; heart affection other than structural, 43·8 per cent.

NEW AURAL INJECTOR AND EXCAVATOR, WITH A FLEXIBLE EUSTACHIAN CATHETER.

BY JOHN WARD COUSINS, M.D. LOND., F.R.C.S.,
SENIOR SURGEON TO THE ROYAL PORTSMOUTH HOSPITAL, AND PORTSMOUTH AND SOUTH HANTS EYE AND EAR INFIRMARY.

SINCE the publication of my paper on Tinnitus Aurium, and its Treatment by a New Method of Alternate Injection and Evacuation of Air, I have considerably modified my apparatus, and have now adapted it for self-application. It consists of one hand-ball fitted with a recoil spring, which increases the force and rapidity of its expansion. (Fig. 1.) The injecting and evacuating tubes both terminate

FIG. 1.

in a vulcanite joint, to which a nasal piece of soft rubber can be attached. The nasal pieces are made in different sizes, and several of them are supplied with each instrument. When medicated air is to be used, the volatile substance must be dropped upon a pledget of cotton-wool, placed in the vulcanite box, which is fixed on the injecting tube. In this way I use choloroform, ether, creasote, pinol, and many other remedies. For the successful application of the treatment, it is essential that the patient should be instructed to practise injection and evacuation of the tympanum in the following manner: The nasal orifices must first of all be carefully wiped dry, and the nose pieces adjusted, *so as to securely and completely plug the nostrils.* The nasal tubes are now held in position by the forefinger and thumb of the left hand, and the hand-ball

is elevated and compressed by the right, and then allowed to expand by its own elasticity. During the steady performance of these movements the patient should take a full inspiration, and while holding the breath and pressing the lips together, he should make an expiratory effort, just as if he were in the act of blowing through a tube. With many patients the entrance of air into the tympanic cavity is rendered easy by the act of deglutition, for the muscular movements of the pharynx act directly upon the open ends of the Eustachian tubes. As a general rule, my patients require very little instruction, and soon become very skilful with the instrument. The alternate method presents many advantages over other forms of tubal inflation. It promotes the drainage of the tympanum and the discharge of pent-up fluid into the pharynx. It also proves of material assistance in cases of collapsed and adherent membrane. Its daily application is especially useful in the treatment of tinnitus aurium caused by abnormal tension, and also in other forms of chronic middle-ear disease. The apparatus for alternate injection and evacuation with the Eustachian catheter is represented in Fig. 2. The tubes are joined together, and near their junction a vulcanite terminal is fixed for the insertion of the catheter. The flexible catheter is a flattened tube of soft metal, and it can be readily bent to any shape by protecting the bore with the stilette. (Fig. 2.) For the successful application of the Eustachian catheter, it is often necessary to adapt the instrument to the curvatures of the nose and pharynx. Sometimes the nasal passages are by conformation irregular, or they become tortuous and obstructed by morbid changes in the bone or lining membrane; in other cases the position of the tubal orifices and mucous folds of the pharynx require a special flexion of the beak. For some patients I keep a catheter always bent and ready. The instrument must be carefully washed and deodorised after each operation. In performing the operation of alternate injection and evacuation of the tympanic cavity, the hand-ball must always be attached to the catheter after its introduction. The surgeon should elevate and compress the hand-ball with the right hand, and hold the catheter and close the nostrils with the left. At the same time he must direct the patient to practise the movements already described. During the expansion of the hand-ball the catheter should be drawn outwards for half an inch, for by this manœuvre the evacuating power will be increased. Special care must be taken to prevent twisting or kinking of the indiarubber tubes. Sometimes the point of the catheter gets lodged in the folds of the pharynx, so that the injection of air is obstructed. When this occurs, the instrument should be rotated a little, and then replaced over the Eustachian orifice. If from any cause considerable difficulty is experienced in passing the flexible metallic catheter through the nasal meatus, I substitute for it a fine vulcanite instrument, which can be bent to any curve by gentle heat.

FIG. 2.

In conclusion, I desire to mention that all the instruments described in this paper have been made for me by Messrs. Maw, Son, and Thompson, of London.

Smithson.

DEATH FROM AN OVERDOSE OF MORPHIA.—The death is announced of Mr. Harwood Casson, physician and surgeon, of Worksop, Notts, under painful circumstances. The coroner's jury returned a verdict of "Death by misadventure from an overdose of morphia, taken to relieve neuralgic pains." The evidence showed that Mr. Casson had been a martyr to neuralgia, and could not obtain sleep without morphia. He also suffered from Bright's disease. The foreman, on behalf of the jury, expressed a feeling of deep sympathy with the widow and family.

FRACTURE OF SKULL THROUGH ANTERIOR FOSSA (?); SYMPTOMS OF COMPRESSION; TREPHINING; RECOVERY.

BY F. H. WIGMORE, M.B. CANTAB.

W. W——, about thirty years of age, a tailor by trade and not a sober man, fell down a flight of stairs backwards on the night of April 23rd. I did not see him until May 6th, fourteen days after the injury. The history I obtained was as follows:—The scalp was slightly cut and bruised (scar seen on shaving the head) on the left side about half an inch above the superior curved line. His nose bled, and he was stupid like one suffering from concussion of the brain. From the date of the injury he became gradually unconscious, his articulation imperfect, and he spoke for the last time on May 4th. On May 5th urine and fæces passed incontinently. On the 6th he had two slight "fits" in the morning. When I saw him that night he was in a state of stupor, not so deep but that he could be made to open his eyes and mouth, though not to protrude the tongue. He had a slight fit while I was with him; the left arm and hand alone affected and drawn towards the middle line of the body. The pupils were natural and reacted to light. Temperature normal; pulse 100. Ten grains of bromide and iodide of potassium every four hours and a sinapism to the back of the neck were ordered.—May 7th: Had a good night. No fit until 9 A.M., and then several fits in succession. The right side of the face and neck involved; head drawn to the shoulder of same side; angle of mouth depressed; and platysma working violently. Both arms involved; the right more than the left. Breathing rapid and thick. Could still be roused, but with increasing difficulty. Pupils dilated. Temperature 100°; pulse 100.—8th: Has had a fit every ten minutes throughout the night (statement of woman who sat up with him). He was comatose and breathing stertorously. Cold sweat was thick upon his brow. It was evident that he must die in a few hours unless relieved by operation. Dr. Somerville, to whose advice and assistance I am much indebted, met me in consultation, and we agreed to trephine. The man being placed under chloroform and trephined at the seat of injury, the dura mater bulging into the wound, there appeared some roughness, as though the internal table had broken inwards below the opening, and another circle of bone was removed, but nothing to account for the symptoms was discovered. The needle of a hypodermic syringe was thrust through the dura mater into the brain in several directions, without result. Finally, I passed a fine aspirating needle across to the right side, and thus explored the other hemisphere and dura mater without result. Ptosis and internal squint of the right eye appeared. I loosely sewed up the wound, introduced a moderate drainage-tube, and dressed with antiseptic tow, first well dusting the parts with iodoform. At night I found him breathing quietly. Temperature normal; pulse 100. No recurrence of fits.—9th: No more fits. Has slept throughout the night. Takes food well. Can be roused, but soon falls asleep again. All his movements coördinate. Pulse quiet. Temperature normal. Breathes quite easily; has not micturated. The ptosis and squint have disappeared.—10th: Got out of bed and voided urine naturally. Put out his tongue on being asked; spoke. Recognised his child; temperature normal; pulse quiet. Wound healed at upper part.—11th: Went downstairs to watercloset; returned to bed. Recognised his family; would not keep the bandage on his head. The progress of the case from this point was characterised by complete return of speech and muscular power, with control over sphincters. Unfortunately he was obstinate, would walk out, having removed the bandage; became irritable when opposed; wished to go to work on Sunday, and went to bed in his clothes. The wound broke down and suppurated. At this point I advised his removal to the workhouse infirmary. I hear from his wife that he has almost completely recovered (June 25th), the wound having healed. He is rather simple in manner, but quiet and self-possessed.

Remarks.—There is very little doubt that this man suffered from fracture through the anterior fossa by contrecroup, and that subsequent increasing hæmorrhage produced the severe symptoms of progressing compression from which he would have died. The hæmorrhage, I should say, was

located in the upper part of the ascending frontal convolution on the right side, and on the posterior end of the second frontal convolution of the same side. Probably the other side of the brain was also affected, and this will account for the cross symptoms the case presented. The friends stated to me that he fell on the right side of the head, but shaving the scalp disclosed the recent scar on the left side. It was the crossed condition which determined us to trephine at the seat of injury rather than at the point of physiological disturbance; and I was the more inclined to do this because I remembered to have seen cases of supposed occipital concussion productive of considerable mental confusion and irregular, almost choreic, movements. The relief afforded by the operation was too full to admit of doubt that it played the only part in the recovery, although nothing was discovered at the seat of injury. What the operation did was manifestly to relieve tension, and thus the compression. In future, unless the apparent seat of injury corresponds with the symptoms produced, I shall trephine over the centres involved rather than the neighhood of the wound. Had I followed this physiological law instead of the old surgical axiom the result from an operative point of view would have been satisfactory, whereas now it is only interesting and negative.

Since writing the above I have seen the patient, who is quite well in every respect.

Macclesfield.

PUERPERAL FEVER: A POSSIBLE SOURCE OF CONTAGION.

BY R. D. PEDLEY, F.R.C.S. ED. AND L.D.S.,
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Is it possible for a medical practitioner or a nurse whose mouth is in an unhealthy condition to be the means of developing in a patient puerperal fever or any of the local manifestations of septic poisoning, such as pelvic cellulitis or pelvic peritonitis? This question has many times presented itself since reading as a student a case mentioned by Dr. Playfair in vol. ii. of "The Science and Practice of Midwifery," of a medical man who, suffering from chronic ozæna, had to relinquish practice on account of the numerous deaths from puerperal fever among his patients. I have not been able to answer the above question in the affirmative, but I consider there is sufficient evidence to justify a few remarks, thereby placing the matter before those who have better opportunities of forming a correct judgment. Some light may be thrown on this "possible source of contagion" by making mention of a case recently reported in the daily press of an inquest held on the body of a woman who had died from puerperal fever. The mother of the patient—an uncertified midwife—had been the means of spreading this terrible disease. Dr. Talbot, in evidence, stated that "he had attended her for a piece of dead bone in the mouth, and if she had been fingering it that might account for the outbreak." This, of course, is an extreme case. Probably the woman was suffering from syphilitic necrosis, and that her mouth was in a very bad condition, also that her acquaintance with antiseptics was practically *nil*. Most mouths are rendered foul by carious teeth, and there can be very little doubt that medical men and nurses are as liable to suffer from carious teeth as their patients, and find, as a rule, far less opportunity of seeking attention.

The condition I refer to is generally brought about as follows. A tooth is attacked by caries. If neglected this makes its way into the tooth until the pulp chamber is reached, and the nerve is exposed. After a variable amount of pain the nerve dies, and becomes putrid right up to the apex of the fang. A small amount of septic matter escapes through the apical foramen, and sets up an acute alveolar abscess. At this stage if the tooth is extracted the trouble is ended; but if the pus is let out beneath the lip, or makes its way through the thin alveolar plate, the swelling disappears after a day or two and a sinus remains from which matter is constantly discharged in small quantities. In dental language it becomes a chronic alveolar abscess. The tooth is practically a piece of dead bone; with this difference, that through its centre is a narrow channel in which rests the remains of a putrid nerve. It is quite common to find several teeth in a similar condition, sometimes cut down level with the gum, having received no further treatment than careful concealment by artificial teeth. Beyond the fact that an occasional swelling takes place in the alveolar plate, and a very disagreeable taste is present, the owner may go on for years with very little discomfort. Is it unreasonable to suppose that a very intelligent nurse (having several teeth such as we have described) may seek to relieve the pain of an aching stump by pressure of the fingers; and, not being aware of any danger, convey septic matter to the body of the patient in the ordinary discharge of her duties?

In May and September of 1886 two cases came under my notice, of which brief notes were taken at the time.

CASE 1.—Miss ——, a nurse, said she should have been before, but had been attending a case of puerperal fever. Her mouth was in an unwholesome condition. Front teeth good. Not a single molar sound; all the back teeth carious. Had two alveolar abscesses in connexion with upper bicuspid teeth on the right side, and one in connexion with a lower molar tooth on the left side.

CASE 2.—Dr. ——, suffering from an acute alveolar abscess over left lateral incisor tooth in the upper jaw. Face considerably swollen. Tooth had been sore for some time; he could scarcely bite anything with comfort. Teeth generally in a bad condition. Several stumps in the lower jaw on the right side and in the upper jaw on the left side. Had suffered for years; of late the stumps had given considerable trouble. Several sinuses from which pus oozed. Would have sought advice before, but just after tooth became troublesome had a puerperal fever case to attend to, and had been much worried. No reason to be assigned for puerperal fever; surroundings good and healthy. Good drainage.

That pus from an alveolar abscess is necessarily septic we cannot be sure; but there are three facts worthy of notice: 1. Pus from an alveolar abscess is often of foul odour. 2. As a consequence of alveolar abscess, necrosis of a portion of the jaw-bone is not at all uncommon. 3. There are cases recorded of patients who have died from pyæmia and septicæmia as the result of alveolar abscess, *vide* Tomes' "Dental Surgery," Salter's "Dental Pathology and Surgery."

It may be urged that the medical practitioner is constantly brought in contact with septic matter, and that the adoption of the necessary antiseptic precautions would exclude all possibility of such direct communication as I have suggested. This is quite likely; also that, if a source of danger is pointed out, the medical man may be trusted to do his best to avoid it. We cannot be so sure of the nurse, who necessarily is brought far more often in contact with the patient, and who, after the first few hours, has the wellbeing of the patient in her own hands. No medical man can be held responsible should the nurse fail to carry out his instructions; but he can, in most cases, ascertain beforehand that the nurse is not the subject of a malady, be it local or constitutional, which is likely to be a source of danger to his patient. In conclusion, I would offer this brief suggestion. It is desirable that midwives and nurses should be subjected to medical inspection before attending obstetric cases.

Railway Approach, London Bridge, S.E.

TRANSVERSE SEPTUM IN THE VAGINA TREATED BY OPERATION.

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IN THE LANCET of April 13th, Dr. C. J. Cullingworth reported on cases of transverse septum in the vagina which he had treated successfully. I was rather surprised to see in the bibliography appended to that paper how comparatively few cases had been recorded, and yet many such must occur, and it may be well to add to the record. It so happened that within one week in March last two such cases came under my care, and others, though not quite of the same kind, at various periods before. Of the two

lately occurring, in one—a young unmarried lady of twenty-five—I was actually consulted by her mother about her as suffering from menorrhagia and dysmenorrhœa; and yet, on digital examination, the septum (or diaphragm, which I think is a more accurate term) was so complete that I could with the finger detect no aperture in it, though doubtless there was some minute orifice, but so minute as to render the process of evacuation of the menstrual fluid a long-continued affair. I regret that in consequence of the removal of this patient with her family at that time from the town to a distance, I was unable to follow up the case for more careful investigation and further treatment.

The other case was that of a lady, aged thirty-two, who had been married nearly three years, and who was said to menstruate regularly and without any noticeable difficulty; there had been no pregnancy. The occasion of my being consulted was for general debility and various nervous symptoms and depression. In the absence of impregnation, and from her answers to questions suggested by that, the doubt occurred to my mind whether, notwithstanding the menstruation, there might not exist some mechanical obstacle to efficient intercourse. Digital examination revealed such an obstacle; one felt—as in the case mentioned before—only a sort of thimble-shaped cavity with a sufficiently wide opening, but apparently absolutely closed top; and per rectum I could feel higher up that the cervix and body of the uterus were of ordinary size. This being the case, I suggested an operation, and the surgical assistance of Mr. Connell Whipple, of this town, was called in. We together carefully examined her in a good light. The diaphragm was a fleshy one, of the same reddish colour as the parts around, with rather roughish surface, having some small fleshy papillary projections. We failed to detect any aperture, and the problem as to whether she really menstruated, or had some vicarious discharge which took its place, could only be solved by waiting until the next menstrual period. In rather less than three weeks we received notice that this had come on, when we met again. On examination, there was no menstrual fluid to be seen, and the only apparent change was that the thimble-cavity was much shallower and the top slightly bulged down. She was then directed to strain downwards; there was at once seen a small oozing of the menstrual fluid from the anterior part of the membrane, about one-third of an inch behind the urethral orifice—much as when one pricks with a pin an artist's bladder of oil paint,—the minute aperture was at the base of and hidden by one of the afore-mentioned papillæ. Mr. Whipple barely succeeded in passing a fine eye probe through it; an ordinary silver probe would not pass. This fine probe was then felt to move freely in the cavity of an ample vagina beyond, its point could also be felt by the finger per rectum, and the uterus above. The diagnosis being now clear, and operative interference justified, we waited six or seven days until the discharge had quite ceased. We then met again, and Mr. Whipple proceeded to operate. The patient being under methylene and placed in the lithotomy position, and the pinhole orifice having with a little difficulty been again found, it was dilated enough to allow the passage of a director, and on that a bistoury, with which the fleshy membrane was incised crucially; then the quarters were removed by means of scissors back to the level of the vaginal wall, so as to leave no projection. The hæmorrhage was trifling. The vagina was then well syringed out with a carbolised injection, which process was repeated daily thereafter by the nurse during healing. The vagina was now fully patent, would admit two fingers easily its whole length, and the os, cervix, and uterus felt normally developed. The patency was secured by the daily introduction, until healing was complete, of a good-sized finger-shaped wad of compressed cotton wool, smeared with vaseline, and the patient was kept in bed. In a few days she was quite well, and restored to her husband with a patent vagina, and I may add soon became pregnant. This is a different kind of case from that of an absolutely imperforate diaphragm, which I have also met with, and which is more common, and also other cases which I have encountered of circular dense hymen with a comparatively small central opening. The former reveals itself by entire absence of menstruation, and the suprapubic tumour is formed by gradual accumulation; but in such a case as the one detailed above, a fruitless married life may go on, uncomplained of obstruction, however strange it may seem, and menstruation go on regularly; so that there is no suspicion of the real state of malformation, until it may so happen that, the woman consulting a medical man, but not for that special purpose, circumstances suggesting suspicion may fortunately lead to an examination, and the state of affairs is revealed and safely remedied. One can hardly think of any malformation possibly involving momentous issues in family history, yet so readily set right, and with such satisfactory results. A caution, however, with regard to operative procedure in these cases suggests itself from my remembrance of another very different, though outwardly similar, kind of case, which occurred to me some years ago. I was consulted about a well-grown handsome young lady of marriageable age, who had never menstruated. On examination I found the same short, thimble-shaped cul-de-sac vagina, but on the most careful examination per rectum and above the pubes I could detect no uterus, and gave my opinion that there was none, and that no operation was advisable or feasible. She was afterwards taken by her parents to consult a specialist in London, who absolutely confirmed my opinion of the melancholy fact as one incapable of remedy.

Plymouth.

A CASE IN WHICH PERITONITIS WAS CAUSED BY VAGINAL SYRINGING AFTER TWO SUCCESSIVE CONFINEMENTS.

BY CHARLES SCOTT WATSON, M.D.

MRS. A. B——, a healthy primipara, was confined on Aug. 18th, 1886, after an easy and natural labour. Vaginal syringing night and morning with dilute Condy's fluid was ordered, and a Higginson's syringe was used for the purpose. All went well—pulse and temperature keeping below normal—for thirty-six hours—i.e., till 6 P.M. on the 19th, when, immediately after being syringed, the patient turned on her left side and was at once seized with severe pain in the left iliac fossa, soon spreading across the lower abdomen. Shortly afterwards she had a rigor, and the temperature rose to 103·4°, the pulse to 110. At my visit about 7 P.M. she was lying on her back in great distress, complaining of intense constant pain and of tenderness over the lower half of the abdomen. Both pain and tenderness were most severe in the left iliac region. Abdominal examination, as far as it could be carried out for the tenderness and resistance, disclosed nothing abnormal, and no vaginal examination was then made. About midnight the pain began to abate a little, but did not disappear till the 21st, when also the temperature fell to normal. On that date there was still abdominal tenderness, and on vaginal examination the uterus and vaginal roof were found to be tender, the uterus not freely movable, but not displaced. On the 22nd a dose of castor oil was given, apparently a mistake in the management of the case; for on the following day there was a gradual return of pain and tenderness (rather more diffused than in the first attack) and of fever, the temperature rising to 101° and the pulse to 100 on the evening of the 23rd. Under opium and poultices these symptoms again yielded, and on the 25th there was neither pain, tenderness, nor fever. From the 29th to the 31st the temperature ranged between 100° and 104°, in association with pain and tenderness in different areas of the breasts. On the latter date the uterus was well reduced in size, movable, not tender, the vagina everywhere soft and painless. Thereafter the patient did well. Her second confinement, again in every respect natural, took place on April 5th, 1888. Vaginal syringing (1 in 3000 sublimate) was again carried out twice daily with a Higginson's syringe. The patient made satisfactory progress up to the morning of the 17th, the highest temperature registered being 98·4°, the highest pulse 72. She got up on the eleventh day, and again on the twelfth. On the morning of the 17th—i.e., twelve days and a half after confinement—when syringing was being carried out the same accident again occurred. The patient was on her back, and had passed the vaginal tube herself without any pain or unusual feeling. After two syringefuls had been gently delivered, and while the fluid was returning clear, and apparently as freely as usual, she felt pain in the left iliac fossa. The pain rapidly increased, and after five or six syringefuls the patient felt very sick, and syringing was stopped. She then turned on her left side, when

free blood-stained watery discharge commenced, which, I may here add, lasted for about twelve hours. After turning again on her back the pain spread first to the hypogastrium, and then to the right iliac fossa. Within ten minutes of syringing it was very intense. There was no rigor. At my visit, an hour and a half later, I found her suffering from severe constant abdominal pain, aggravated by the slightest movement or pressure. Both pain and tenderness were most intense in the left iliac region and hypogastrium, but they extended over to the right side and nearly as high as the umbilicus. There were, moreover, at first occasional exacerbations of the pain. Temperature 102°; pulse 100. The vaginal tube was an ordinary gum elastic one, without a terminal opening, but with four lateral ones—two a quarter of an inch and two half an inch from the tip. The distance from tip to shield was four inches and a half. She was treated with morphia and poultices, and by the afternoon—six hours after syringing—the temperature had fallen to 99·4°, the pulse to 84, the pain being a little easier. On the morning of the 18th the temperature was 99·4°, the pulse 84, and the pain decidedly less; by the evening there was neither pyrexia nor spontaneous pain. The temperature did not again rise, but the patient continued to have tenderness of steadily diminishing intensity till she got up on the 24th. This lingered longest in the left iliac region. The bowels were moved by an enema on the 19th, and afterwards spontaneously. Vaginal examination was made on the 21st, when the uterus was found anteverted and fixed. The os, just within reach of the examining finger, was closed and exceedingly sensitive; there was no feeling of hardness or fulness anywhere in the pelvis, but the roof of the vagina was very tender. The patient made a perfect recovery.

The sudden occurrence of pain in the left iliac fossa, in the first instance on movement immediately after syringing, and in the second actually during its progress, with the rapid development of pyrexia and of the local symptoms of peritonitis, leaves little doubt that the accident consisted in the passage of fluid through an abnormally patent left Fallopian tube into the peritoneum. In the first instance, it would seem that some residual fluid in the vagina or uterus was tilted into the peritoneum when the patient turned on her side. In the second case, although the prolonged blood-stained watery discharge indicates distension probably of the uterus, the transmission of fluid by the tube must have occurred under low pressure, since the pain began when only two syringefuls had been injected, and while the fluid was returning freely from the vagina. It seems probable that a puerperal case, with open Fallopian tube, is more than usually liable to such an accident from the diminished intra-abdominal pressure after confinement. The rapidity with which the alarming symptoms subsided on both occasions is also worthy of notice.

Tufnell Park-road, N.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

UNIVERSITY COLLEGE HOSPITAL.

A CASE OF HYDROPHOBIA; NECROPSY; REMARKS.

(Under the care of Dr. SYDNEY RINGER.)

WE publish this week a well-recorded case of hydrophobia, in which the symptoms during life and the appearances found after death, including those seen on microscopical examination, were carefully noted. It is another example proving the powerlessness of medicines to cure this disease when the symptoms have once declared its nature, however much may be done to relieve it. At present our only hope of escape from hydrophobia after the bite of a rabid animal is in the preventive inoculation of M. Pasteur. We mentioned the good result attained by this method earlier in the year,[1] and the letter from our Paris correspondent last week[2] gives statistics which show increasing success. Between Nov. 1st, 1888, and the same date in 1889, 1830 persons were under treatment, of whom eleven died, notwithstanding the treatment, being a mortality of 0·6 per cent. Of the eleven, four died during the treatment, or in the fifteen days which followed it; and if these be not included in the statistics, the mortality is reduced to 0·38 per cent., a result which is very satisfactory. For the report of this case we are indebted to Dr. Charles Arkle, late resident medical officer.

Mary O'C——, aged five years and a half, was admitted into University College Hospital on May 8th, 1889. On March 30th (exactly five weeks before the appearance of any symptoms) she was bitten by a dog. This dog was a stray one, and was driven by the patient's mother out of a dark cellar in their house, where it had gone to hide itself. The dog was a large one, with dark curly hair, and quite unknown. A lot of children ran after it when it was driven out, the patient being one of them. The dog ran away at first, but then turned round and bit the patient in the right upper eyelid and upper lip. The bites were cauterised at once, and after a few days again touched with caustic. They gave no apparent trouble afterwards. The patient had always been a very bright, good-tempered, and healthy child. On May 5th, five weeks after the occurrence of the bite, the patient's father noticed that the child was dull, "flopped about," hung her head down, and would eat but little. On the 6th she complained of thirst; her mother told her to drink out of a water-bottle, but she said she could not. On being pressed to drink she shuddered, and would not try again. On the following day her father noticed that she caught her breath when she attempted to swallow, and he remarked that she had something the matter with her chest. She also drew back when water was offered to her. She could not sleep, and ate nothing. This was her state on admission at 4 P.M. on the 8th:—She was a well-nourished, strong, healthy-looking girl. She appeared, however, ill in herself, depressed, querulous, and listless. No paralysis. The patient stood and walked fairly well. No spasm of any kind when she was left alone. Pupils of fair size; react readily to light. Temperature 100°; pulse 120; respiration 16 to 20. On attempting to swallow water there was fairly constant spasm, which was quick and difficult to analyse. It most closely resembled, however, the inspiratory efforts made by persons when cold water is dashed over them. The diaphragm and the muscles above the clavicle seemed to take the chief part in its production. She asked occasionally for a drink, but desisted after taking a sip; if pressed, the spasm tended to become general, affecting the muscles of the legs. She was ordered a 5 per cent. solution of cocaine as a paint for the throat, a drachm of succus conii every two hours, and peptonised milk (by rectum) every two hours. She swallowed much better after the cocaine, the spasm, although present, being very slight. She took her medicine and food well, but was very restless and fretful at night, talking rather incoherently of rats and dogs.

May 9th.—3 A.M.: She was given chloroform inhalations, but struggled and resisted greatly. The pulse fell from 140 to 104; remained full, regular, and strong. Breathing quite natural. She slept a little after the chloroform, but was very excited on waking. 9.15: Patient looks thin, white, and pinched; is querulous; the nose running a good deal. Spasm on drinking not so marked as yesterday. No abhorrence at sight or sound of water. Patient even splashing her hands into a basin of water. Left knee-jerk obtained with difficulty; right, not at all. Temperature 100·2°. Two drachms of succus conii given every two hours, and one drachm of liquor hydrargyri perchloridi every two hours, also inunctions of mercury and lanoline and cocaine pastilles (one-tenth of a grain) occasionally before food. During the day she took plenty of nourishment, for the most part with absolute comfort and with very little spasm. In the afternoon she was at times quite maniacal, flinging cups and small articles about the room, stamping her feet, and scratching. These outbursts were of short duration and seemed to exhaust her a good deal. She took food up to 11.30 P.M., and then would take nothing, the spasm becoming more severe. Ten grains each of chloral hydrate and bromide of potassium were given by the rectum and a subcutaneous injection of one minim of the solution of morphia, but without sleep.

[1] THE LANCET, vol. ii., p. 952. [2] Ibid., vol. ii., p. 1257.

10th.—A draught of air on face, back, or chest produces marked general spasm, but the pharynx and throat muscles do not seem to be chiefly involved. As far as could be ascertained, the patient seemed to throw herself back (opisthotonos?) and to kick up her legs from the hips, with perhaps a slight tendency for the limbs to cross. The latter part of the movement seemed almost purposive, but at each subsequent attack the same thing happened. There is occasional spasmodic contraction of the muscles acting on the left side of the mouth, drawing it strongly over to the left side. Temperature 101 6°; pulse 140. Chloroform was administered and the throat examined. It was generally red, and a few strings of ropy mucus could be seen. Half a pint of egg, milk, and brandy mixture was introduced into the stomach. She slept ten minutes after the anæsthetic, and was then very restless all the morning. There is a fairly constant dribble of watery saliva. She takes liquid nourishment with very little spasm. The temperature rose in the evening to 102°.

11th.—Patient slept a couple of hours after two doses consisting of five minims of tincture of opium and ten grains of chloral hydrate. On waking she complained of "smoke in the room," was very restless, and would not stop in bed. Legs seem weaker; speech incoherent, and she appears to have delusions. The face has an exceedingly wild, haggard look. There is some conjunctivitis, especially of the right eye, with muco-purulent discharge. Three drachms of succus conii given every two hours. During the day she continued to take nourishment in small quantities, with but little discomfort and no real pain or agony. She was again put under chloroform and fed by catheter in œsophagus, as before. She was not nearly so violent. In the afternoon she rambled incessantly, did not recognise her mother, rather rapidly lost strength in the latter part of the day, and the temperature rose to 103°. She lay in bed with a vacant stare on the face; eyes half closed. The legs and arms are occasionally jerked about; but there is no painful spasm, no screaming, and no paralysis. At 7 P.M. she became unconscious. Pulse over 200; respiration 36; and she remained practically in this state up to the time of her death, at 3.20 A.M. on the 12th. The temperature at the time of death was 106·2°.

Necropsy (*eight hours after death*).—Rigor mortis well marked. On opening the spinal canal there was found great engorgement of the vessels, especially at the sides of the canal, giving an almost uniform dark blue-black appearance. This appearance was especially well marked in the neck, where a very considerable quantity of very dark blood was present and escaped. A fair quantity of arachnoid fluid was present, but apparently not beyond the limits of health. No capillary congestion or any trace of inflammation of the membranes. Sections of the cord seemed extremely vascular, and the grey matter perhaps looked very pink, especially at the upper and lower extremities of the cord. The vessels in the substance of the cord were much distended, giving rise to the appearance of hæmorrhages. The vessels bled under observation, and the blood could in all cases be wiped off. The superior longitudinal sinus of the brain was filled with dark clot. Nothing noteworthy was seen with the naked eye in any part, perhaps the vessels in the fourth ventricle and the substance of the brain generally were a little more noticeable than usual. The other organs were healthy. The larynx was a little red and contained some tough mucus.

Microscopic examination of the brain and spinal cord, after careful hardening, revealed the following: In the cervical region of the cord the capillaries and bloodvessels were uniformly injected with blood. This was very evident in the grey matter, the posterior and anterior roots, and wherever the vascular supply was greatest. In the lower part of the medulla the lymphatic sheaths were swollen, and higher up, in the floor of the fourth ventricle, these were everywhere distended with leucocytes. The injection of the finer vessels was everywhere very manifest. In the cerebrum portions of the cortex in the frontal region were hardened, and, under the microscope, sections showed very well marked general congestion, the capillaries and bloodvessels being everywhere greatly distended with blood. No actual hæmorrhages were seen, and there was no obvious change in the appearance of the nerve elements.

Remarks by Dr. ARKLE.—Several points are worth noting in this well-marked case of hydrophobia, to all of which, however, attention has previously been called. In the first place, the incubation period was rather short (five weeks)—within six weeks,—due doubtless to the youth of the patient, and the seat of the bite being on the face. The behaviour of the dog appears to have been very characteristic; it was a stray dog, was hiding in a dark cellar, and when disturbed showed a strong tendency to bite. The initial symptoms of the disease in the child were very typical and the course of the disease characteristic, thus: dulness, malaise, loss of appetite, &c., were soon followed by the spasm stage, which latter, although well marked, was never very distressing, the mental disturbance, which was very pronounced throughout, being a much more prominent symptom. The mania was intermittent, and subject to the sudden variations so characteristic of the disease, the child at one moment fighting and the next embracing the nurses in charge of her. As the case went on, the spasm almost entirely disappeared, concurrently with a loss of the deep reflexes and paralysis of the vagal centre, accompanied by hyperpyrexia and cardiac failure, terminated the case on the eighth day. With regard to the treatment adopted, inoculations were of course out of the question, the disease being fully developed when the patient came under observation, but the beneficial effects of the administration of anodynes were well marked, life being prolonged to almost the maximum duration obtained in these cases. Cocaine to the throat, large doses of conium, and occasionally chloroform inhalations, certainly enabled her to have nourishment without discomfort, and during the whole course of the illness she appeared to have no suffering whatever. The great predominance of the mental disturbance over the other symptoms is not an uncommon variation in cases of hydrophobia; but whether from the fact of the vascular lesions affecting the cortex more than the medulla, or possibly from the treatment adopted in this case, it is difficult to make out. Mercury, which is said to have done good in one case, was powerless here, although the patient was rapidly salivated, and the case is another instance of how little can be done remedially in dealing with the established disease by means of drugs.

HOLBORN UNION WORKHOUSE, MITCHAM.

A CASE OF EXTENSIVE SUBCUTANEOUS EMPHYSEMA FOLLOWING THE RUPTURE OF A VOMICA; REMARKS.

(Under the care of Mr. OSCAR B. SHELSWELL.)

THIS case illustrates the occurrence of a somewhat rare complication of phthisis—the escape of air from a cavity of the lung into the subcutaneous tissue of the body, and its general diffusion. The account is full, and the pathology shown in the description of the post-mortem examination. Emphysema, as the result of a wound in the lung, is commonly met with in surgical practice; but as accompanying any form of disease of the air passages it hardly receives attention in works on medicine, a large number of which do not mention in the index subcutaneous emphysema. It has been described frequently as following excessive straining during parturition, also in cases of whooping-cough, and has been due to the perforation of an ulcer of the trachea or bronchi.

A. M——, aged sixty, was admitted into the infirmary on August 13th, 1889, suffering from phthisis. He stated that he was quite well till last April, when he coughed up half a pint of blood in two nights in "flakes," and has coughed more or less ever since, the phlegm at first being scanty, but gradually increasing in quantity. He has been losing flesh. There was no history of fractured rib or of any injury to the chest, and none of sudden pain after coughing at any time. Mr. W. A. Shelswell (who was at this time acting for Mr. Oscar Shelswell) states that the emphysema was first noticed about the right clavicle on August 22nd. It slowly progressed to the right shoulder, arm, hand, right side of face, right thigh, scrotum, leg, and ankle; the right eye was almost occluded. The left side was also affected, but much less than the right. On August 29th the emphysema was universal. There was no pain whatever, but he was troubled with his cough. Percussion note was hyper-resonant. Auscultation was impossible owing to the crepitations of the emphysema. He generally lay and slept on his left side. There was some dyspnœa; no pyrexia or albuminuria. He did not

notice his condition concerning the emphysema till it was pointed out to him. When Mr. Oscar Shelswell saw him again on the evening of Sept. 8th his condition was as follows. He was lying on his left side, and said he could not lie in any other position on account of his breathing being difficult. The respiration was 36, temperature 101·2°, and pulse 120. His face was swollen, especially the right cheek, which was much distended. There was also distension of the tissues of the neck, thorax, abdomen, back, arms to hands, and legs to knees, and of the right leg a little below the knee. There was more on the right side, especially above the right clavicle, and about the upper right intercostal spaces than elsewhere. On pressure there was a dry crackling felt and heard. It was impossible to distinguish pulmonary sounds with the stethoscope on account of the displaced air causing a crepitating noise. There was hyper-resonance all over the chest. The sputum was abundant, thick, nummulated, and of a greenish colour. The tongue was moist and coated with white fur. He said he was in no pain at any time, but felt very weak. The swelling became much diminished by Sept. 12th. There was diarrhœa on the 12th and 13th. He gradually became weaker, but lingered till the twenty-fourth day from the first appearance of the emphysema, a much longer time than it was at first deemed possible considering his dangerous condition, which had been diagnosed as phthisis with ruptured vomica. He died quietly on the morning of the 15th, without any special increase of dyspnœa.

At the post-mortem examination, made twelve hours after death, the following condition was found: There was much emaciation, the body was quite warm, rigor mortis slightly marked. The connective tissue in many situations was much distended with air, principally on the right side of the body, the chief seats being at the upper part of the thorax on the right side and in the right supra-clavicular region. It existed also on each side of the neck and all over the thorax, abdomen, perineum, scrotum, right thigh, right arm to the back of hand, and all over the back as far as the buttocks, to a slight extent in the left arm and less so in the left thigh. It was absent from the face (where it had previously existed to a very great extent, causing a much bloated appearance), scalp, ears, legs, below the knees, and the hands. On passing the hand quickly over the distended parts a sensation was conveyed as of cotton wadding, and the sound resembled the same. The skin, loose and wrinkled in places, was dry and harsh. The air was easily displaced, producing a dry crackling sound and sensation, the indentation remaining. The right arm above the elbow measured in circumference three-quarters of an inch more than the left, owing to the air in the tissues. On the removal of the skin the subcutaneous tissue was seen to be very pale and silvery and streaked with very little fat; small vesicles of air were also seen, and their characteristic sound and feeling were produced by pressure. In the tissues outside the second right rib in the axillary line was a vesicle of air about the size of a small grape, but the vesicles generally were very much smaller and of varying size. The subcutaneous tissues on the left side of the thorax and neck contained a quantity of air, but very much less than the right. On very carefully separating the right lung from the chest wall, a hole in the lung leading to a cavity was seen opening in the second intercostal space, and three inches from the middle of the sternum. Careful separation was effected by means of a probe, there being no intervening pleura apparent. The opening would admit the tip of the little finger; radiating inwards from its edge to about one-eighth of an inch was a very thin membrane. A similar but smaller opening in the lung was seen, corresponding to the first intercostal space; and a smaller one still between the two, this last being perhaps caused by the thin anterior wall of the cavity giving way a little on the separation from the chest wall. The right pulmonary and costal pleuræ were adherent and detached from the chest wall together, air outside the costal pleura rendering this easy, except round the upper lobe at the side and the back, where much difficulty was experienced and the knife had to be freely used, and in the removal the cavity was torn at its posterior part, showing the thinness of its wall. The combined pleuræ were thickened and of flesh-coloured tint, and numerous air vesicles were seen on the outside. The left pleura was free from adhesions except at the apex; on its anterior surface was a whitened streak of thickened pleura extending longitudinally in front of the upper lobe. There was no evidence of air either between the layers of the pleura or in the tissues immediately external on the left side. There was pus in the trachea and bronchi. The left lung was darkly mottled externally, greyish on section, frothy mucus, pus, and blood being squeezed out; numerous grey and yellow tubercles and commencing cavities were seen; portions of the lung sank in water. There was some emphysema of this lung at the edge of its base; its weight was 2lb. 2oz. The right lung presented a cavity in its upper lobe about the size of a turkey's egg and its anterior wall, measuring 3 × 2 inches, was extremely thin, in several places being thinner than note paper; externally its anterior wall was rather dark, and presented none of the thickened flesh-coloured pleura seen over the rest of the lung. The cavity extended quite to the posterior part of the lobe; its contents consisted of greyish-yellow pus. A ridge of condensed pulmonary substance partially subdivided the cavity, extending transversely across the anterior wall, separating the upper from the lower openings above referred to, but not sufficiently to prevent the finger in the cavity passing from one to the other. On section numerous grey and yellow tubercles were seen, and several smaller cavities were present. Portions of the lung sank in water; its weight was rather less than the left lung. There was a considerable quantity of air in the anterior mediastinum, but none in the posterior. In the intestines were several ulcers. The other organs were wasted, but otherwise appeared healthy. There was much air in the tissues at the back of the abdomen outside the peritoneal cavity, also some in the tissues external to the pelvic peritoneum.

Remarks by Mr. OSCAR SHELSWELL.—This case seems of special interest on account of its rarity, a vomica seldom giving way as above described, owing to the fact that the wall is so generally composed of condensed pulmonary tissue, and having the pleura over it much thickened. On referring to the cases brought before the medical societies and other reports in THE LANCET for the last ten years, I find numerous references to subcutaneous emphysema resulting from injuries to the chest wall or other part of the air passages, from whooping-cough, and from parturition (said to occur once in two thousand cases), but no mention of a case similar to the above. Some of the text-books do not refer to it at all. In Dr. Hilton Fagge's "Principles and Practice of Medicine" is the following: "A very rare effect of excavation of the lungs is the production of subcutaneous emphysema. A case in point occurred in Guy's Hospital in 1882. The patient had been slowly sinking for weeks, and shortly before his death there was a slight crackling below the clavicle and at the root of the neck. Frantzel, in 'Ziemssen's Handbuch,' alludes to similar instances. As pneumothorax is not present, it must be assumed that ulceration extends through both layers of the pleura, the space between having been previously closed by adhesions." Frantzel, in "Ziemssen's Cyclopædia of the Practice of Medicine," in the article on Pneumothorax, writes: "This cutaneous emphysema is sometimes observed in caseous pneumonia without pneumothorax, in the case of a vomica reaching as far as the pleura pulmonalis, causing adhesions between this and the pleura costalis, and perforating both pleural folds at once."

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Cysts of Cerebellum.—Cerebellar Tumour.—Cancer of Breast following Eczema.—Psorospermia.

AN ordinary meeting of this Society was held on Dec. 17th, Dr. Dickinson, President, in the chair.

Dr. HADDEN exhibited a simple Serous Cyst involving the right lobe of the cerebellum. It was embedded in the white matter, and there was no sign of growth, hydatid membrane, staining, or softening in the neighbourhood. The cyst measured an inch and a half from side to side, and one inch from before backwards. The symptoms were those of cerebellar tumour. Two cases were reported in the Society's Transactions, one by Dr. Sharkey in vol. xxxiii., and the other by Dr. Pye-Smith in vol. xxxvi. The exhibitor referred to another case which he had pub-

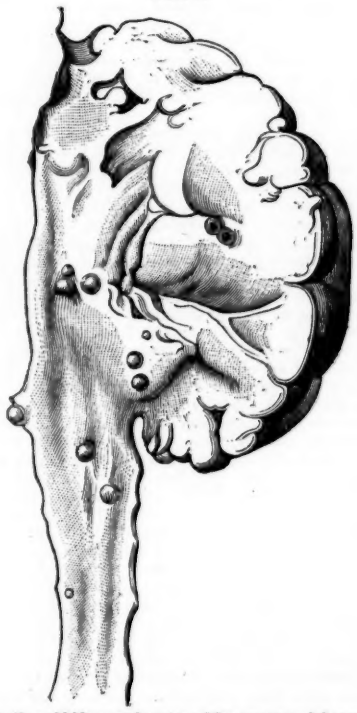
ished, and to one recently described by Dr. Mayor at the Bradford Medico-Chirurgical Society. The origin of these cysts was obscure; possibly they were due to the dilatation of lymph spaces. The explanation given by Mr. Althorp of Dr. Mayor's case was very doubtful. This gentleman suggested that the cyst might be a fœtal remnant, and alluded to the presence of a ventricle in the cerebellum of some birds. —Dr. GULLIVER showed an almost precisely similar case. The tumour was a central smooth-lined cyst in the right lobe of the cerebellum; it contained a fluid which was rather thick and colloidal in nature. There was no evidence of malignant disease.—Mr. BOWLBY asked if the cyst wall was examined microscopically in either case.—Dr. DICKINSON inquired into the condition of the lower extremities. In cases of one-sided cerebellar lesion loss of power but not of sensation in one or both lower extremities had been observed.—Dr. HALE WHITE referred to some investigations conducted by Dr. Savage and himself with regard to the pathology of holes in the brain. In two lunatics colloidal cysts were found in nearly all the organs of the body, and this was certainly against the congenital theory of their origin.—Dr. HADDEN, in reply, said that there was no paralysis and no staggering; he did not regard the cysts as of congenital origin. The cyst walls of these cases had not been microscoped, but in others examination had given negative results.

Dr. W. S. COLMAN showed a specimen of Simple Cyst of the Cerebellum, involving the middle lobe, and also excavating the white matter of the left lateral lobe. The symptoms had existed for two years: paroxysmal left occipital headache; reeling gait, with tendency to fall to left; occasional vertigo, with sensation of falling backwards; slowly progressive impairment of power in right arm and leg; prominence of both eyes, sluggish pupils, slight nystagmus, and double optic neuritis. Great improvement took place for a month or two, but death occurred suddenly from paralysis of respiration. On microscopic examination the wall of the cyst was found to be composed of layers of neuroglia. There was no trace of malignant disease, nor were there any other cysts in the cerebellum.

Mr. GILBERT BARLING showed a case of Alveolar Carcinoma of the Breast following Eczema (chronic papillary dermatitis) of the Nipple. The specimen was removed from a lady aged fifty-eight, who had suffered from the so-called eczema for six months. The nipple only was involved, and from it an indurated cord extended inwards on the equator of the breast for an inch and a half to a firm nodule the size of a horse-bean. The skin over the whole breast was movable and free from puckering, and the axillary glands were free from enlargement. Only the middle third of the breast was removed, including the skin over it and the pectoral fascia and muscle beneath. The patient remained well twenty months after the operation. A series of sections from the nipple through the indurated cord and the little tumour showed overgrowth of the rete mucosum with abundant small-celled infiltration. The lacteal ducts could be traced from the nipple to the growth, enlarged and distended with epithelium, whilst in places they were surrounded by small-celled growth. The small tumour was made up chiefly of alveolar carcinoma with traces here and there of duct carcinoma. He commented on the short time intervening between the origin of the eczema and the development of the carcinoma, and upon the general absence of squamous-celled carcinoma in these cases.—Mr. BOWLBY referred to Dr. Thin's observations, which had not been confirmed by subsequent observers. Dr. Thin held that the cancer was the primary lesion, and was the cause and not the result of the eczema. He had examined five cases, and in two there was eczema of the nipple without tumour, and this went to show that the disease of the nipple might precede the growth in the breast. In duct cancer of the breast he had not observed eczematous appearances. The cancer associated with eczema was usually spheroidal-celled carcinoma, and in most of the cases he had examined there was a distinct interposition of normal breast tissue between the cancer and the diseased nipple. The patients had remained well after removal of the nipple when that was alone diseased, and also in some cases after the removal of the cancerous breast. One case was well for five years and another for four years afterwards. In one case, after removal of a diseased breast eczema developed in the opposite nipple; this was also removed, but the patient died of a recurrence in the median line. In all the cases of diseased nipple the breasts showed retrogressive changes because the patients had passed middle life.—Mr. R. W. PARKER had examined one case of eczema of the nipple unassociated with tumour, but there was abundant evidence of abnormality of the breast tissue. He laid open the ducts and found that the disease extended directly from the nipple to the breast. He inquired if in Mr. Barling's case the nipple ducts were examined. He agreed with Dr. Thin that the eczema was due to irritation caused by fluid secreted by the diseased breast.—Mr. BARLING, in reply, said that the nipple ducts were not healthy, for they were distended, and there was a small-celled infiltration round them. In duct cancer a slight discharge was usually present, and the woman could squeeze from the breasts a fluid something like milk, though not lactating. He found hyaline material round the ducts, but no fresh development of elastic tissue such as Dr. Thin had described.

Mr. BLAND SUTTON described a kidney and ureter which had been preserved in the museum of the Middlesex Hospital for many years as an example of mucous cysts in the ureter. The characters of the supposed cysts strongly suggested the notion that they were of a parasitic nature.

FIG. 1.

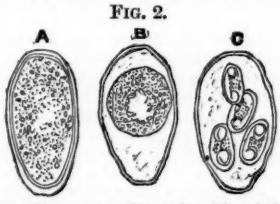


Portion of kidney and ureter with psorospermial sacs.

Recently portions of the ureter containing the small rounded bodies were prepared by the celluloidin process, and found to contain the so-called psorospermial bodies. These were oval-shaped capsule 0·037 minim in length and 0·02 minim in diameter, and identical in microscopical characters with the coccidium oviforme, the parasite which was the cause of the destructive liver disease of the rabbit. In the specimen exhibited (Fig. 1) the psorosperm sacs were immediately beneath the mucous membrane of the ureter, and did not invade the muscular coat. No saccules or coccidia could be detected in the renal tissue. The relation of the coccidia to the ureters was investigated with care, because Leuckart, the greatest living authority on this disease, stated that in the bile ducts of the rabbit the coccidia developed in the epithelial cells. This was certainly not the case in the ureter, and required confirmation in the case of the bile ducts. The subject had attracted but little attention in this country. The Transactions contained only two specimens: one by Dr. Hadden, published under the misleading title of "Disseminated Sarcoma"; the other in the Kidney, by Mr. Eve, last

year. It was curious that the disease was not more frequent in man, for it was extremely common in rabbits: for instance, quite recently 500 rabbits were imported from Holland for examination purposes; of these, 60 to 66 per cent. had well-marked psorospermial disease of the liver. It was comforting to reflect that eating rabbits thus affected would not infect the eater, and that man and rabbits probably got coccidia from the same source, whatever that might be. Our knowledge of the life-history of this parasite amounted to this: In the young coccidium the granular protoplasm entirely filled the capsule; later it became concentrated in the middle, as shown in Fig. 2 (A and B). This change was but merely accidental or due to methods of preparation, as the stage A stained with

FIG. 2.



Coccidium oviforme. A, B, Stages found in rabbits and man. C, Stage occurs outside the body. (After Leuckart.)

methyl violet, but stage B stained best with fuchsin. It seemed that, however long the parasite remained in the body, it underwent no further change. After leaving the host the protoplasm gradually gave rise to four spores, as at C. No one, so far as he knew, had seen the stage C whilst the parasite had been lodged in the tissues of its host. The history and development of the coccidia in man and rabbits, as well as the symptoms to which they gave rise, were identical. Unfortunately, the source of infection and the condition of the coccidium, when introduced into men and rabbits, were unfortunately unknown. Darier had recently attempted to show that some skin affections, such as molluscum contagiosum, chronic eczema of the nipple, and the like, were cases of psorospermia. The evidence, however, was far from being conclusive.

Mr. SILCOCK related a case of Parasiticism by Psorospermia. The patient, a woman aged fifty-three, was admitted to St. Mary's Hospital seven days before death. She was thought to be possibly suffering from typhoid fever. The illness dated from a chill taken seven weeks before death. The symptoms consisted in pains in the limbs, nausea, and occasional sickness, tenderness over the liver and spleen, fever of remittent type, the temperature reaching 103°, and slight diarrhœa. The urine was albuminous; the splenic and liver dulness increased; the tongue coated with brown fur, becoming dry; the breath foul. Death resulted from cardiac failure. The necropsy was made eighteen hours after death in the middle of July. The liver was much enlarged, weighing eighty-three ounces. In its substance were a number of aggregations of caseous foci, for the most part near the surface, there being generally a well-marked red ring of congestion or capillary hæmorrhage around each caseous area. The spleen was enlarged, weighing sixteen ounces, and exhibited similar caseous foci varying in size from a pin's head to that of a pea, arranged in aggregations, and with a red inflammatory zone around each nodule. In the ileum were found six papule-like elevations, with red bases and circumferential inflammatory zone; also in the large intestine, as well as in the ileum, were red patches of infected mucous membrane, from one to three inches square. A small pneumonic area existed in the anterior border of the left lung; the other organs and tissues presented no noteworthy change, except those associated with fever. The naked-eye post-mortem appearances to a certain extent resembled those of tuberculosis, but different in the character, situation, and limited generalisation of the lesions. On examination of the caseous nodules, coccidia were found which corresponded in every respect with those described by Leuckart. The psorospermia did not appear to develop within the body, a fact noticed by this author; but they were obtained by keeping the coccidia in water and at an equable temperature in a warm room or incubator. It was a very remarkable fact that the development of the psorospermia went on in a weak solution of bichromate of potassium such as is used for hardening purposes. The resistance and toughness of the coccidium capsule probably explained this occurrence, as also the difficulty experienced in getting the organisms to stain with any of the reagents in ordinary use. The histological characters of the liver and splenic lesions were admirably given by Leuckart, and to his description there was at present nothing to add; that the coccidia were present in the bile ducts, and that their topographical distribution was regulated by the latter, were also obvious from an inspection of the specimens; but it was noteworthy that the only intestinal lesions found were far away from the duodenum. Their presence in the spleen could only be accounted for on the supposition that they had been carried there in the blood stream. This was the first case of the kind which, so far as he knew, had come under his notice, but from the marked *primâ-facie* resemblance of the disease to tuberculosis he could not doubt that it was much more common than was generally imagined. Mr. Silcock was very much indebted to Mr. Rogers, of St. Mary's Hospital, for the excellent specimens which were before the Society, and for the working out of the case generally.

Dr. DELÉPINE said that the presence of psorospermia in the liver of rabbits was a fact of such common occurrence that it hardly attracted the notice of the histologist, notwithstanding the use which was made of rabbits for experimental purposes. He had had lately to examine a large number of rabbits for special purposes, and, wishing to avoid as much as possible serious errors, he had made a point to note carefully the amount of psorospermic nodules found in each case. This was done chiefly with the view of discovering whether the diseased livers would react to various agents as well as those which were little or not diseased, and whether the presence of psorospermia diminished in any marked degree the vitality—a serious pathological state as to render them unfit for the carrying out of comparative experiments. Out of fifty rabbits of which the necropsy had been made during the last few months, only four were found apparently, and two certainly, free from the lesions produced by psorospermia. Thus 92 per cent. were certainly affected, and possibly 96. Some of these rabbits were obtained in London; the greater number was, however, of Swiss origin, and obtained from various farms. (Psorospermia were apparently more abundant in Swiss than in English rabbits.) All these animals were young, but varied considerably in size, the smallest weighing 688 grammes, the largest 1675 grammes. He had the occasion to examine in Geneva a large litter of young rabbits, and found that the animals were of different sizes. But, contrary to his expectations, he found that some of the small rabbits had very few psorospermia in their liver, whilst some large individuals were infested to a considerable extent. However, these animals having all been submitted at the same time to a rather long preliminary fast, two of them died, and these were very small. In one of them the liver was almost entirely replaced by psorospermial nodules. In the other the gall-bladder was distended with a clot, resulting from hæmorrhage caused by ulceration of the roof of the gall-bladder; the rest of the organ was comparatively free from lesions. Of those that remained, one other got very ill, and psorospermia were also extremely abundant. But of the six that remained, it was found on opening the body that the largest, and the one that had been the most active, was also the one in which psorospermia were most abundant. From this it would seem that in a very young rabbit psorospermia may multiply to such an extent as to be a serious dange. to the life of the animal, but that after the first few months the presence of even a large number of psorospermia did not interfere much with the nutrition of the animal. He continued the investigation on another line. He weighed carefully the whole body and the liver of all the rabbits which he had to dissect; 32 rabbits were thus examined. Out of that number, 2 were found free from psorospermia; in 9 a psorospermium could be found here and there in the liver; in 8 the parasites were scattered all through the substance; in 10 the psorospermia were abundant; in 3 they were so abundant that it was almost impossible to find a single cubic centimetre of liver tissue free from them. The average weight of the animals belonging to these various groups was as follows:—Psorospermia: absent or nearly absent, 979 grammes; pretty abundant, 871 grammes; abundant, 1010 grammes; very abundant, 790 grammes. Thus it appeared that so long as the psorospermia were not very

abundant the nutrition of the body was not much interfered with (it must be remembered that the three rabbits representing the last group were all very young). The average weight of the liver in these various groups gave more interesting results. In order to render that weight comparable, the average weight, having been found, had been reduced to what it would be in rabbits weighing 1000 grammes in each case. The liver would, when so reduced, weigh: In animals in which the psorospermia are few or absent, 29 grammes; pretty abundant, 35 grammes; abundant, 33 grammes; extremely abundant, 35 grammes. Thus it appears that although the general nutrition was not much affected, yet the liver was distinctly diseased, as its weight showed. The nature of the changes found next attracted his attention, and he found, like previous observers, that the parasites must creep along the bile channel; then its contents, after becoming full of very large highly refracting bodies, escaped from their envelope. The granules now probably penetrated into the protoplasma of the epithelial cells, and in this way a large number of these cells was invaded at the same time. The small mass then developed into a larger protoplasmic mass, which at first was nucleated and nucleolated, then very granular, and finally escaped from the cell; it might become encapsuled or not. In some of these cells a long coiled filament was produced, the nature of which he could not determine. It might be the pseudo-filaria of Van Beneden, in which case there could remain no doubt as to the relation between gregarinæ and psorospermia. The lesions produced were at first limited to the infested epithelium, remarkably fine specimens of papilliferous cysts being thus produced; but after a time the epithelium was destroyed and proliferation of connective tissue took place. Ultimately a kind of biliary cirrhosis was produced.—Dr. HADDEN referred to the clinical history and pathology of his case, which had been before described.[1] The psorospermia were found in the heart, pericardium, pleuræ, peritoneum, liver, and spleen, being subcapsular in the latter organs.—Mr. TARGETT had found one specimen in the museum at Guy's. It was a kidney from a young man aged thirty, who had been under Dr. Richard Bright's care fifty-three years ago; in the pelvis and ureter were found small cysts. Five varieties of psorospermia had been described, and probably only the smaller species affected man.—Mr. SPENCER related his experience at the Brown Institution. When the parasites were numerous they affected the health of the animal. They were found in rabbits, dogs, and cats; he had not discovered them in the spleen. They acted as irritants, and caused epithelial proliferation and round-celled infiltration.—Mr. BRODIE had found one instance in the dissecting room at Middlesex Hospital, and referred to a fatal epidemic of the disease amongst rabbits.—Dr. PAYNE had not seen this disease in the human being. Bollinger of Munich had described a similar parasite in human skin as the cause of molluscum contagiosum. He himself did not know how to distingnish psorospermia when he saw them; if the structureless masses of colloid found were stated to be animals, it might be difficult to contradict, but he would like some better evidence. He asked if any parasite of definite structure had been found in the skin.—Mr. SHATTOCK asked for a description of the intestinal lesions in these cases. He thought the parasites might not have passed up the liver along the bile ducts, but might have escaped from the hepatic substance and thus have entered the ducts.—Mr. W. K. SIBLEY saw abroad a case in a carp which was erroneously described as one of multiple sarcoma. In molluscum contagiosum he had seen appearances like those described in the papers. He pointed out that these structures shrank rapidly in hardening agents.—Dr. PRINGLE had seen the specimens of Darier and Wickham, which appeared to him convincing, but inoculation experiments had not at present been performed.—Mr. SUTTON, in reply, alluded to Cohnheim's observation that puncture of the floor of the fourth ventricle failed to produce diabetes in rabbits whose livers were infested with psorospermia. Investigations into this disease in animals should be cautiously made, for in the monkey he had found that what he at first regarded as psorospermia were really eggs of entozoa.—Mr. SILCOCK, in reply, thought that the finding of these bodies in the spleen proved that they entered by the blood; besides, in the liver many were found outside the ducts. The intestinal lesions in his case were limited to the lower ileum and the first part of the colon.—Dr. DELÉPINE, in reply, said they produced in the rabbit a disease like biliary cirrhosis. The proliferation of the epithelium under the stimulus of their presence could not be doubted. Hake, previously to Müller, had described these structures; various continental authorities had shown that the organism was one of the protozoa, though possibly an immature form of some higher animal.

The following card specimens were shown:—

Dr. HADDEN: Cast of Œsophagus expelled during life.

Mr. SPENCER: (1) Cystic Kidney from a horse; (2) Sebaceous Horn on a Mouse.

Mr. JACKSON: Subdural Hæmatoma.

[1] Trans. Path. Soc., vol. xxxiv.

CLINICAL SOCIETY OF LONDON.

Acromegaly. — Charcot's Disease of Shoulder-joint with Suppuration.—Inflamed Nævus of Leg.—Tumour of Frontal Bone.—Rheumatic Nodules.—Thyroid Adenomata.—Diffuse Aneurysm of Calf.

AN ordinary meeting of this Society was held on Dec. 13th, Mr. Christopher Heath being in the chair.

Mr. A. Q. SILCOCK brought forward a case of Acromegaly in a female aged fifty-three. Her fingers began to grow larger six years ago, her features had increased in size, and the lower jaw was massive and projecting. The cartilages of the nose and the tongue were much bigger than normal. The feet were likewise enlarged, but not to such a degree as the hands.

Cases of acromegaly were also shown by Dr. PERCY FLEMING and Mr. K. CAMPBELL which illustrated various points in the clinical history of the affection.

Mr. CHARTERS SYMONDS introduced two cases from which he had removed thyroid cysts: one of the patients showed ocular sympathetic paralysis.

Mr. SPENCER showed a case of Charcot's Disease of the Shoulder-joint which was at first a simple serous effusion, but later underwent suppuration.

Mr. J. H. MORGAN showed an infant with a condition of the leg which he described as Inflamed Nævus associated with Multiple Subcutaneous Hæmorrhages.

Mr. MORGAN also exhibited a boy aged eleven who had a Tumour of the Frontal Bone, which commenced five years ago, and had spread backwards to the middle of the temporal fossa. He suffered from frequent headaches.

Dr. ANGEL MONEY showed a girl aged ten, who had Symmetrical Indurations in the space in front of each elbow. Mitral disease, erythema multiforme, erythema nodosum, motor instability, and rheumatic subcutaneous nodules showed that the girl was rheumatic. Dr. Money thought that the indurations were bony, but whether pure exostoses, or exostoses *plus* periostitis, or periostitis simply, or whether originating in the bursa beneath the biceps tendon, he could not say. The mother declared that the hardenings varied in size; achings and shootings were experienced both in the affected parts and away from them, in harmony with changes of weather.

Mr. CHARTERS SYMONDS read the notes of eight cases of Cysts and Adenomata of the Thyroid treated by extirpation of the growth, six in women and two in men; one, a woman, was fifty-four years old; the others were under thirty. He sketched the other methods of treatment by injection and incision, and the method used by Professor Hahn, who ligatured masses of fascia and gland as he removed the cyst. In one of the cases recorded the entire thyroid was removed with a tumour that lay partly beneath the sternum. The lobes were empty, and Mr. Symonds regretted that he had removed them. The operation was undertaken early in 1883, before the cachexia following removal of the whole gland was generally known, and the wide oozing surface left after removal of the growth seemed to promise hæmorrhage. In the next case there was a solid tumour behind the right lobe, causing dysphagia so complete that the patient had to be fed with a tube. The lobe and tumour were removed by an incision to one side of the median line over the growth. Some difficulty was experienced in obtaining sufficient room, and this was due to the incision being lateral. On dissecting this tumour, it was found to be encapsuled and to be situated behind, and might easily have been enucleated. Consequently, in subsequent operations Mr. Symonds decided to first search for the capsule and then enucleate. In four subsequent cases this was done, and the growths, in one case solid, in the others partly cystic, were

removed without the loss of any blood, and with great facility. As a rule, at most these small vessels required ligature. In one the lobe had to be raised up before the cyst could be reached. In the remaining case the lobe was removed because it appeared to be blended with the cyst; it turned out subsequently not to be the case. All the patients recovered with primary union, and most required but one dressing subsequently to that made at the operation. Then the method employed was detailed, and may be thus summarised: To make in every case, no matter where the tumour be situated, a median incision; it gave more room and left less scar, and when the deep fascia was opened the largest growth could be brought to the median line. To expose certainly and definitely the cyst or adenoma—i.e., its fibrous wall—and then to dissect off the gland. If the wall be followed closely no bleeding or trouble was encountered. If the white glistening wall of a solid tumour or the bluish wall of a cystic one was not seen at once, then the edge of the gland must be sought and raised up till the capsule was seen. If a dissection were commenced outside this, severe bleeding would be encountered. In the case of a cyst, Mr. Symonds advocated opening it early, after sufficient of the wall had been exposed to secure with forceps, and dissecting back the thyroid just as in ovariotomy. By this means the operation could be performed through a smaller opening, and the resulting scar was slight. The similarity in anatomy between these cysts and adenomata and those of the breast was pointed out, to explain why it was that the growths could so easily be turned out. All the cysts contained in the wall a variable amount of gelatinous glandular material, which showed the usual veins lined by cortical or columnar epithelium, and this structure was exactly the same as in the solid forms. As to diagnosis, it was pointed out that the cases suitable for operation were those in which the growth was localised, well defined, and limited to one side. In no case were there two tumours, though multiplicity was not considered to negative operation, there being no reason why two or more localised encapsuled growths should not be extirpated at the same time. It was impossible to decide between cystic and solid forms without exploration. It was held that excision gave more speedy recovery, and was freer from danger than any other method, while the small scar resulting from injection seemed to the author to be counterbalanced by the prolonged treatment and the often severe hectic that followed. Mr. Symonds also pointed out the necessity of the strictest antiseptic precautions in these cases. He had employed the spray except in four cases, where the wound was kept full of sublimate solution. But more particularly he called attention to the necessity of surrounding the neighbourhood of the wound with towels wrung out of lotion, and of operating with the arms of the assistant as well as the surgeon bare, and of wearing a clean linen apron or a towel pinned over the waistcoat from the neck downwards. These subsidiary precautions he considered of far more importance than the spray. He further added that in all the cases except one there were symptoms sufficiently important to demand operation. The exception was that of a lady who requested that the growth might be removed. He deprecated operation where symptoms were absent. Two patients were exhibited: one, from whom an adeno-cystoma measuring three inches by two inches was removed through an incision one inch and a half long, presented only a very small scar. The other still exhibited the ocular symptoms of sympathetic paralysis, which had antedated the operation performed nearly three years ago.—Mr. HEATH said he had treated a fair number of cases by injection, and though some of them had had afterwards a high temperature, he had not seen that great constitutional disturbance which Mr. Symonds had spoken of.—Mr. SILCOCK showed a Cyst of the Thyroid which he had recently removed. He was unable to delimit the cyst from the gland substance; he made, therefore, a median incision and removed the whole lobe without the least hæmorrhage; he dissected it from the middle line, tying the vessels as he came to them. In one case after injection he had seen diffuse suppuration of the neck, and an abscess in the anterior mediastinum.—Mr. SPENCER inquired what happened to the rest of the gland after division of the isthmus. In one case where he had done this the two lateral lobes had since slightly shrunken.—Mr. PARKER had observed a considerable diminution in the size of the thyroid after division of the isthmus.—Mr. BATTLE said that Mr. Sydney Jones divided the isthmus for dyspnœa, and he did it to obtain atrophy of the gland afterwards. He asked Mr. Symonds whether he had come across cases in which there was communication of large vessels with the interior of the cyst. In one case he had to pack a cyst with gauze to arrest hæmorrhage.—Mr. BERRY said the common course was that when one lobe was removed the other diminished at first in size, and then afterwards re-enlarged. The hæmorrhage came mainly from the vessels along the upper and lower borders of the isthmus. Socin of Basle had successfully enucleated forty-seven tumours from the gland, and his results had been published in a small pamphlet by Dr. Keser.—Mr. GODLEE said that for the removal of small parts of the thyroid body he made a small incision and scooped out the contents of the gland. The only hæmorrhage came from the capsular veins, the pulp not bleeding at all. He had known of disasters from the injection of perchloride of iron.—Mr. SYMONDS, in reply, said that he had not encountered any hæmorrhagic cysts. If one kept free of the capsule, there would be but little bleeding.

Mr. BATTLE then related a case of Diffuse Aneurysm of the Calf of the Leg which simulated Abscess. The patient was a labourer aged twenty-eight, who was admitted into St. Thomas's Hospital in December, 1887. The history was that five weeks before admission the man was descending a ladder when his foot slipped off the last rung. Next day the left leg was painful, and there was slight swelling of the calf. He consulted a medical man, who gave him some liniment. He was then able to get about and do his work for a few days, but at the end of a fortnight the swelling began to increase rapidly, and the pain became very acute, preventing rest. The family and previous history of the patient were good. The leg was swollen, painful, and tender, and measured one-third more than the right. There were fluctuation and œdema five inches above the ankle-joint; the swelling did not pulsate, and there was no pulsation in the arteries below. The temperature was 102·8°, with a furred tongue and full pulse. An antiseptic incision revealed a cavity containing blood, and at the operation next day an opening was found in the posterior tibial artery just below the origin of the anterior tibial. As a small branch artery from the popliteal to the inner head of the gastrocnemius had been divided earlier close to its origin, and the opening in the posterior tibial was so close to the bifurcation, it was necessary to ligature above and below those points respectively, and also the anterior tibial at its commencement, after which the artery between the ligatures was dissected out and removed. The opening from which the blood had escaped was situated on the posterior aspect of the vessel, the margin of which showed five granulations, but no atheromatous change, nor was any formed in the part removed. There was no sac other than that formed by the condensed tissues, the surface of which was shreddy, whilst the interosseous membrane had lost its firmness, and could be made to bulge forwards under slight pressure, restoring the rounded aspect of the anterior part of the limb, which had been so marked when the patient was admitted. Antiseptic dressing was applied and three drainage-tubes inserted, the wound, which was about eight inches long, being closed with interrupted sutures, and the limb enveloped in cotton wool and again placed in the splint. Further examination of the patient showed no evidence of disease of the heart, arteries, kidneys, or any of the internal organs. The foot was at first cold and waxy, but the circulation gradually improved, notwithstanding the fact that many sloughs came away. Later, a sharp attack of erysipelas, with suppuration in the knee-joint, retarded the healing of the wound, and before ultimate cicatrisation occurred the newly formed scar tissue broke down on several occasions. Mr. Battle then alluded to the difficulty in diagnosing some cases in which blood had been effused into the tissues of a limb after subcutaneous rupture of an artery, and added as an appendix a short record of cases of a similar kind. Guthrie had a patient under his care who had a rapid swelling of the calf of the leg, with a history of a swollen pulsating swelling preceding it. There had been a rupture of a posterior tibial aneurysm. In the *British Medical Journal* for 1878 was recorded a case of aneurysm of the posterior tibial, resulting from a wound of the calf of the leg seven months previously. It was proposed to try Esmarch's bandage, but the result was not given. Gross recorded (*Philadelphia Medical Times*, vol. ii., p. 374, 1871) a case of aneurysm of the posterior tibial artery, which formed a

pulsating tumour in the middle of the calf. There was a well-marked bruit. The swelling dated from six months before, and was noticed directly after the patient, a man of thirty-four, had jumped a fence. He felt something give way at the time. There was a curious history in this case. It was said that nineteen years earlier he had received a wound in the calf of the leg, whilst bathing, from the spine of a stingaree fish (Trachinus draco), and Gross inclined to the opinion that the aneurysm was the result of the rupture of a cicatrix of the artery which formed then. He ligatured the posterior tibial through an incision four inches in length, and the patient recovered. A postman, under the care of Spence, had received a wound from a knife in the upper and inner part of the left leg, five weeks before admission (*Med. Times and Gaz.*, 1872). That surgeon made an incision about eight inches in length through the gastrocnemius and soleus muscles, and evacuated pus and clot. The posterior tibial had been injured close to the popliteal, and also one of the venæ comites. A ligature was applied above and below the wound in both artery and vein, and another upon the anterior tibial, just below the bifurcation of the popliteal. These ligatures were left hanging out, the part covered with cotton wool and slightly elevated; the ligature separated in eight days, and the man recovered.—The PRESIDENT referred to the great difficulty in diagnosing these cases, and mentioned an instance which he recently saw which was hard to tell from tumour.—Mr. BERRY referred to the case of a boy aged twelve from whom he had removed a sarcomatous growth from the upper end of the fibula as large as an egg. He was obliged to tie the anterior and posterior tibial and the peroneal arteries. It was seven days since the operation, but no gangrene had at present supervened.—Mr. BATTLE, in reply, said he was surprised that his own case did not proceed to gangrene.

OPHTHALMOLOGICAL SOCIETY.

Hereditary Tendency to Cataract in early Childhood.—Operative Treatment of Cicatricial Ectropion.—Operative Treatment of Symblepharon.—Primary Tuberculosis of Iris.—Tea-leaf Conjunctivitis.

AN ordinary meeting of the above Society was held on Dec. 12th, the President, Dr. J. Hughlings Jackson, in the chair.

Dr. TATHAM THOMPSON (Cardiff) gave a description of well-marked Heredity of Cataract through four generations. The cataract developed when the individuals were from three to five years of age, and in all the cases quoted, except one, affected both eyes. There was at first a finely granular opacity of the entire lens, which rapidly increased in density till vision was reduced to mere light-perception. The cataracts were much harder than those of the ordinary congenital or the lamellar type. One peculiar feature was that the tendency was transmitted in two generations only through the male line, thus differing from the somewhat similar cases recorded by Mr. Berry in the *Ophthalmic Review* for January, 1888, but agreeing with the observations of Hosch and others. The heredity was more marked in the early childbearing period; this was also noted by Mr. Berry in his patients. In reply to questions by the President, Mr. Rockliffe, Mr. Gunn, and Mr. S. J. Taylor, Dr. Thompson said that his patients were in all other respects healthy, and there was no evidence of further disease of the eyes. No information was obtainable enabling him to explain the curious inheritance. No consanguinity existed in the parents of the affected children.

Mr. TWEEDY described a method of operative treatment for Cicatricial Ectropion of the Lower Eyelid, by which he had obtained very satisfactory results. He showed a patient upon whom he had operated, and a drawing of the same patient previously to operation. He made a doubly curved incision from the outer canthus downwards and outwards over the malar prominence, and a second parallel incision about six to eight millimetres to its inner side, carried through the whole thickness of the everted lid. The flap thus formed was dissected up, remaining attached only at the lower end. He then made a single straight incision obliquely across the cicatrix, nearly parallel to the lid margin; the outer end of this reached to the innermost of the two curved incisions. The lid and adjoining skin were then separated from the subjacent tissues. This allowed the cut surfaces at the sides of the flap to be brought closely together and united by sutures, and the eversion of the lid was thus corrected. The gap left by the drawing up of the lower lid was filled by the flap previously made, which was turned inwards towards the nose, and secured in position by a few stitches.—Mr. MACKINLAY asked if the depressed cicatrix, usual in such cases, was filled up by this method of operating. In the case shown there still remained a rather deep depression.—Mr. SPENCER WATSON fully appreciated the ingenuity of Mr. Tweedy's method, but thought that for most cases a simpler operation would suffice.—Mr. TWEEDY, in reply, said that the operation he had described was designed for the cure of the ectropion. In the particular case exhibited there was a large osteophytic mass at the lower margin of the orbit, covered by a very thin cicatrix, and that little could be done to remedy the depression at the site of the scar.

Mr. TWEEDY also gave a description of a procedure he had adopted in cases of extensive Symblepharon following Burns. It was most suitable for those instances in which there was a prolongation of the cicatrix into the cornea. His plan was to freely separate the lid from the cornea and globe, making a sulcus rather deeper than that of the normal conjunctiva; then, having attached two or three fine doubled silk threads to what had been the uppermost margin of the symblepharon, to pass these by means of curved needles through the lid from the bottom of the sulcus, bringing them out on the skin surface as near the lower orbital margin as possible. These threads were then tied over a piece of drainage-tube, and allowed to remain in position for four or five days. By this means the cutaneous surface of the corneal portion of the symblepharon was folded inwards and became the lining membrane of the lid. The patient should be kept under observation during the process of repair, so that any adhesions which formed between the lid and the globe could be broken down. If the lower lid were much incurved by the folding of the flap, its position could be restored by buttonholing the flap near the margin of the lid.

Dr. HILL GRIFFITH related particulars and showed specimens and drawings from a case of Tubercle of Iris, which occurred in a female child aged seven months. The eye had been affected for one month, and the child subject for three months to attacks of bronchitis and diarrhœa; there was an enlarged gland in the neck on the same side, but there were no other physical signs of tubercle. The parents were healthy, and there was no family history of phthisis. A yellowish nodule grew from the periphery of the iris of the right eye, and numerous millet-seed bodies from its surface; the pupil was closed, but there was no acute inflammation. The nodule grew rapidly, and the smaller deposits multiplied day by day. The eye was enucleated after three weeks' treatment. The disease was found to be confined to the iris and ciliary body. The new growth exhibited the histological characters of tubercle; but Professor Dreschfeld failed to detect the bacillus tuberculosis. In thirty-two recorded cases in which microscopic and other tests left no doubt as to the tubercular nature of the disease, one eye only was affected in twenty-nine; the average age of the patients was twelve, youngest four months, oldest fifty-one years. In ten cases bacilli were searched for, but only found in four; in one of the remaining six cases, however the inoculation test was successful. Three cases in which no operation was undertaken terminated fatally from tuberculosis. Of the twenty-seven cases in which enucleation was performed, two died with brain symptoms, but several others showed signs of tubercle subsequently to the operation. Dr. Griffith thought enucleation was on the whole satisfactory, cases being reported well five or more years afterwards. Iridectomy could not be recommended. In view of the fact that it was impossible to be quite certain if the disease were primary, and that some of the milder cases got well, he would enucleate only if the sight was destroyed or the eye becoming rapidly disorganised in spite of treatment, as in his own case.—Mr. LAWFORD quoted two cases of supposed primary tubercle of the iris in young children. In both enucleation was performed, and the general condition of the patients improved considerably; one was known to be alive and well three years afterwards. In these and in many of the recorded cases there was strong tubercular heredity. His own feeling was in favour of enucleating in cases of intra-ocular tubercle, as soon as there was moderate certainty that the eye was irremediably damaged; he thought the after-history of published cases justified this opinion, for in a fair

proportion the disease seemed to have been eradicated.—Mr. MCHARDY referred to a case of localised choroidal tubercle which he had brought before the Society last session, and in which he had removed the globe. The child, though delicate, was still in fair health. In cases of tubercular disease of the cornea, recovery sometimes occurred even when the affection was very severe. In localised choroidal tubercle, enucleation should, in his opinion, be performed; but in cases of tubercle of the iris he was often doubtful what treatment to adopt.—Mr. TWEEDY spoke of a young man who had been under his care at Moorfields for a year or eighteen months, in whom both irides were studded with little tubercular bodies. The eyes were slowly degenerating, in spite of all treatment. There was no personal or family history of either tubercle or syphilis.—Dr. TATHAM THOMPSON referred to a case of tuberculosis of the eye in which enucleation was followed by tubercular meningitis and death.

Mr. CHARLES WRAY (introduced) read a paper describing a form of Conjunctivitis observed by him after the application of Tea-leaf Poultices to the Eyelids. In a typical case there were swelling and congestion of the lid margins, congestion of the palpebral and ocular conjunctiva, especially in the line of the palpebral fissure. The caruncle and plica semilunaris were swollen, and presented a peculiar glistening translucent appearance. There was some sero-purulent discharge. Mr. Wray considered it most probable that the affection was due to micro-organisms.

The following patients and card specimens were shown:—

Mr. TREACHER COLLINS: Microscopic Section of Human Lens with Epithelium on the inner surface of the Posterior Capsule, and showing other structural peculiarities.

Mr. JESSOP: (1) Case of Aniridia with Dislocation of Lenses; (2) Case exhibiting a Punctate appearance of the Anterior Capsule of the Lens.

Mr. SILCOCK: Case of Symblepharon treated by Snellen's Operation (modified).

Mr. SPENCER WATSON: Osteoma of Infra-superciliary Region.

MEDICAL SOCIETY OF LONDON.

Adjourned discussion on Aortic Aneurysm.

A CLINICAL EVENING of the Medical Society took place on Dec. 16th, the President, Dr. Theodore Williams, being in the chair. A large number of cases of aneurysm were shown.

The PRESIDENT, in resuming the adjourned discussion on the Diagnosis and Treatment of Aortic Aneurysm, congratulated Dr. R. Douglas Powell on the practical character of his propositions, and especially on his attaching more importance to the pressure phenomena than to the cardio-vascular signs in the diagnosis of aneurysm. With reference to the relation which fusiform aneurysm bore to saccular, it must be remembered that both sometimes coexisted in the same patient. He had never heard the diastolic "shock-sound" except in cases of aortic aneurysm, but it was not always to be detected in these, and as for murmurs, they were quite as often absent as present. The relative importance of auscultatory phenomena and pressure signs depended principally on the portion of the aortic arch involved, aneurysm of the first portion usually presenting some physical signs in the shape of pulsation, dulness, shock, or murmur, and it was generally with this form that cases of aortic regurgitant disease with retracted lung were confused, but he thought that the position of the heart, the presence or absence of cardiac hypertrophy and the results of measuring the two sides of the chest were generally distinguishing features. In many cases of aneurysm of the transverse and descending portions of the arch the evidence of auscultation was often wanting, and that of pressure signs most important; the variations in this pressure in aneurysm from changes in the size of the vascular swelling often proved of assistance in the diagnosis. In these cases the presence of stridor, of metallic cough, and dysphagia with fixation of the left vocal cord, dilatation of the left pupil, and weakening of the left pulse generally signified aortic aneurysm, but he had published a case in the Proceedings where all these phenomena were present, and were after death proved to have been due to a sympho-sarcomatous tumour in the mediastinum, which was detected during life by the rapid extension of the dulness in more than one direction. Syphilitic glands might give rise to nearly all the characteristic pressure signs of aneurysm, for in one well-marked syphilitic patient of his, with enlarged cervical and axillary glands, stridor of voice and breath were present, with fixing of the left vocal cord, and tubular sounds were heard above both scapulæ, with sternal dulness and accentuation of the second sound of the heart. Under large doses of iodide of potassium the symptoms entirely disappeared, which was the result in a similar case, where in addition dilatation of the left pupil was noted. Nevertheless, stridor was of great diagnostic value, and sometimes the only means of detecting the presence of aneurysm. A man aged thirty-two was admitted into the Brompton Hospital with a history of emphysema and asthma, and during one of the asthmatic attacks stridor was noted. The spasms subsided under chloroform and he was free for weeks, but he died suddenly in an attack of syncope, and post-mortem examination revealed an aneurysm the size of a Seville orange springing from the back of the transverse portion of the aorta and involving the posterior pulmonary plexus. The presence of markedly tubular breathing above one or both the scapulæ was one of the most valuable signs in obscure cases, but no signs or symptoms could be absolutely relied on. We should only trust to a combination of the various phenomena to guide us to the right conclusion. He (the President) often experienced great difficulty in persuading the patient to adopt Tufnell's method long enough for a complete trial, but he obtained excellent results from the iodide of potassium treatment, while restricting the patient's liquids and confining him to one floor of his house or to the gallery of the hospital; in other words, limiting his exertions without keeping him in bed, and he thought this sufficient for many cases of aneurysm. Consolidation of aneurysms sometimes took place under conditions the very reverse of those of rest, as he witnessed in a shoemaker suffering from aneurysm of the ascending aorta, apparently pointing in the second intercostal space on the right side, and who, in spite of rest being enjoined, pursued his heavy labours at his last, with the result that six months later the tumour had sufficiently consolidated to withstand a blow from the patient's hand apparently without injury. The man died later of a posterior extension of the aneurysm. With regard to abdominal aortic aneurysms, many cases of vaso-motor paresis of the aorta were mistaken for it; and he well remembered one instance where what had been described as saccular aneurysm of the abdominal aorta disappeared after the removal of an ill-fitting truss which had compressed both iliac arteries.

Dr. QUAIN said that the cases which gave difficulty in diagnosis were the tumours which produced pressure signs and the cases of aneurysm which did not. He referred to the case of Mr. Liston, who died forty years ago. Though seen by many distinguished physicians, none could diagnose his lesion, which turned out to be an aneurysmal tumour pressing on the trachea and the adjoining parts. Since then, however, our methods of diagnosis had improved. He had seen iodide of potassium combined with rest do much good; at any rate, it made the lives of many patients tolerable. He related a case which showed the value of stridor as an early symptom of aneurysm.

Dr. SEMON referred especially to the value of pressure symptoms as revealed by laryngoscopic examination. He said that nine years ago he laid down a law to the following effect: that whilst the adductors showed a great proclivity to be affected in various kinds of functional disease, the abductors were usually first affected, in all cases of gradually progressive organic lesion of the laryngeal motor nerves. If the abductor twigs only were affected, there would be no symptoms whatever, and the vocal cords would be found to stand a little nearer the middle line, and on phonation would come properly together. But gradually the opposing muscles underwent paralytic contracture, and the vocal cords became fixed in the middle line; this would produce no clinical sign, but would be found on laryngoscopic examination. Later, the internal thyro-arytenoid muscle became also affected, and then the voice was somewhat impure.

Dr. DE H. HALL said that pulsating empyemata were most difficult to diagnose from aneurysms, as were also malignant growths, but the latter could sometimes be told from the steadily downward course which they pursued. He was enabled to diagnose dyspnœa from direct pressure on the trachea from that produced by paralysis of the crico-arytenoidei postici by the entire absence of respiratory

excursion of the cords in the former instance. In administering iodide of potassium he thought Balfour's rule a good one—to diminish the dose at once when the pulse commenced to rise in frequency. In one case he found great benefit follow the application of an ice-bag to the chest in aortic aneurysm. He preferred aconite to digitalis as a quieter of the heart's action. In 96 per cent. of the cases of aneurysm Moore's treatment by introduction of wire would be injurious or useless. Aneurysm, from its tendency to impoverish the blood, increased the liability of patients to phthisis. In treatment it should be remembered that, as the original sac was filling with fibrin, another aneurysm occasionally developed further on. He exhibited two cases, both under the care of Dr. Sturges, at the Westminster Hospital. One, a man aged forty-nine, a smith's fitter, had been in the hospital since August, 1886, and the aneurysm commenced to develop eight months before that. There was pulsation in the second right interspace. The treatment was rest, but the diet was not particularly restricted; iodide of potassium was administered. He had been allowed to get up since March, 1888, and was since free from pain, though there was still a pulsating swelling. The second case was a waiter aged fifty-nine. He was admitted in October, 1889, with the history of a year's illness. In the left infra-clavicular region there was loss of resonance, with pulsation and well-marked diastolic shock. Laryngoscopic examination showed the left vocal cord in the cadaveric position.

Dr. MITCHELL BRUCE in his remarks devoted himself to treatment. He referred especially to five cases in which he had employed a combination of Tufnell's method with iodide of potassium. In the first case, that of a man aged forty-two, an aneurysm presented in the third left interspace. He was kept on his back for 207 days; given sixteen ounces of solid food and twenty-one of fluid daily; and sixty grains of iodide of potassium were administered in the twenty-four hours. At the end of that time he was comparatively well. He died about a year later after free living. In the second case, that of a woman aged fifty-six, an aneurysm lay behind the left sterno-clavicular joint. Strict rest was enjoined for 130 days, with seven ounces of solid food and twelve of fluid, and sixty grains of iodide of potassium. The patient was much better three years after the treatment, the tumour having disappeared. The third case was that of a woman, aged forty-eight, who had an aneurysm at the junction of the ascending and transverse arch, with double aortic disease. She was kept in bed for two months, and given forty grains of iodide daily, which effected considerable improvement. The fourth case, in a man of forty-seven, was much like the second, and, like it, did well. He was kept in bed for 105 days, given twelve ounces of solid food and twelve of fluid, with forty-five to sixty grains of iodide. The fifth case occurred in a woman aged forty-eight, who had an aneurysm of the ascending arch, and also one of the left common carotid. She was kept at rest for thirteen weeks, given ten ounces of solid food, with eight of fluid, with forty grains of iodide of potassium. At the end of six weeks the carotid aneurysm had consolidated, and at the twelfth week the aortic aneurysm was partly solid. The patient died suddenly two years later of aortic disease. Dr. Bruce was strongly impressed as to the value of the rest and iodide of potassium treatment, but said that the cases must be carefully selected. The treatment should be thoroughly carried out in every detail, and such adjuncts as morphine, antipyrin, &c., used when necessary. He showed an aortic aneurysm into which a short length of steel wire had been introduced and electrolysis applied. The wire was surrounded by a layer of decolourised fibrin, and there was evidence of commencing consolidation on the walls of the sac.

Dr. KINGSTON FOWLER said that though Dr. Powell had divided these cases into two classes, yet he had not implied that they could not be combined. A fusiform aneurysm was often associated with regurgitant aortic disease, but an aortic diastolic murmur was rare with sacculated aneurysms. Pain was a valuable symptom, and aneurysms were often overlooked through not paying attention to this. The prognosis of aneurysm with regard to duration of life was rather better than was usually supposed. One case he had watched to complete consolidation for eight years and a half, while another died of aortic regurgitant disease after an aneurysm had existed seven years and a half. He showed a case which he first saw in 1882; the patient was a musician, and blew a wind instrument. He was treated for four months with rest and diet combined with iodide of potassium, and he had been watched ever since. He had been at work since 1886. He was not clear as to which of the two parts of the Tufnell treatment—the rest or the diet—did the good, but he thought that the rest was of the greatest possible importance. It ought to be seriously considered whether patients should be compelled to be put to the intense suffering caused by the restriction of food, and especially of liquids in summer. He thought that there were certain contra-indications to the Tufnell treatment, such as the coexistence of aortic regurgitation, for the compensation of the left ventricle should be maintained, which could not be done under the Tufnell treatment. He was in favour of rest and iodide of potassium, and thought that diet was not of so much importance; he certainly would not make the patient excessively hungry or thirsty. Though he had deprecated wiring in one case in which it was adopted, yet he thought that in that instance it had prolonged life. He considered that life in most cases of aneurysm was shortened rather than lengthened by surgical procedures.

Dr. SEYMOUR TAYLOR said that the diagnosis of aneurysm presented some anomalies. There were only five physical signs proper to aneurysm—namely, abnormal dulness, pulsation over the dulness, bulge, thrill, and "diastolic jog," or shock. He thought that thrill was commoner than Dr. Powell seemed to infer; it was a common sign in saccular aneurysm near the surface. He looked upon the diastolic jog as a systole of the sac, aided by the recoil of the distended surrounding tissues; for its production it was necessary that the aortic valve should be fairly competent. He had seen it in abdominal aneurysm, and the sphygmogram of the femoral arteries would exhibit in such cases a marked "waterhammer" type. He had been in the habit of speaking of aneurysm of the first part of the arch as causing principally venous obstruction, of the second part as causing pressure on the respiratory tract and on nerves, whilst a sac in the third part most frequently impinged on the œsophagus and on the vertebræ. Syphilis he regarded as an unduly magnified cause of aneurysm, while heredity had been overlooked. He was glad to hear Dr. Bristowe speak against prolonged rest in bed, but in considering this question he would divide the poor from the rich; in the latter the effect of a prolonged rest, with the administration of iodide, should certainly be tried. He had seen ergot do good in the way of arresting pain, but the effect of alcohol, especially of ardent spirits, was baneful. He unhesitatingly condemned the intrusion of wires or of other foreign bodies into the sac.

Dr. ROBERT MAGUIRE showed five patients suffering from aortic aneurysm. One was a diver in the Chatham Dockyard, and it was probable that the atmospheric and other conditions of his employment had contributed greatly to the development of his disease. This patient, in addition to other signs of aneurysm, showed also bilateral paralysis of the abductors of the cords, with inspiratory stridor. This was a most valuable sign, occurring as it did when other symptoms were little marked. A second patient showed an aneurysm of the first portion of the aorta, illustrating the fact that such a position caused the appearance of physical signs, and not pressure symptoms. This patient showed well-marked signs of aortic regurgitation, and the sphygmograph indicated inequality of the radial pulses. As a rule the sphygmograph was not so valuable as the well-trained finger, but an exception must be made to this rule for aneurysm cases. Here the tracing, which showed a rounded summit, a gradual descent, obliteration of the secondary waves, and which also was obtained by pressing hard on the artery, was a very valuable indication. The third case showed pressure on the left bronchus; the fourth how an assemblage of slight symptoms would establish the diagnosis, when each alone would be useless; while the fifth case was one of aneurysm of the aorta involving the innominate artery. Dr. Maguire also referred to a sixth case, where the patient, given greatly to athletic exercises, had engaged to run a race one week after he was first seen. He had a most extensive aneurysm, and was quite unconscious that anything serious was the matter with him.

Dr. EWART exhibited two cases, one of simple dilatation of veins of the chest without other sign of aneurysm; it was relieved by treatment with iodide of potassium. In the second case there was protrusion of a tumour in the second interspace, and Tufnell's method of treatment, combined with iodide of potassium, had been adopted for a year and a half with great benefit; but fluid pulsation was still perceptible in the sac. He looked upon the combined

method as the best treatment for those patients who were unfit for work.

Dr. POWELL, in reply, expressed gratification at the discussion which had been provoked by his paper. He did not say that he regarded fusiform aneurysm as not requiring treatment, but that the treatment of the associated cardiac disease was the important thing. The remarks on abductor paralysis were valuable, and he had always held that the laryngoscope should be used in these cases. In most cases of stridor the cause was found to be direct pressure, and in hardly any was tracheotomy of use. He said that Tufnell's method should be carried out thoroughly if it were adopted at all. He had not tried ergot, but the doses ordered by Dr. Sibson seemed to him to be trivial ones; he was in the habit of ordering it in two or three drachm doses in cases of hæmoptysis, with no bad result. In treatment it was of the utmost importance to properly select the cases, and he had endeavoured to indicate those which should be treated in the different ways available.

A hearty vote of thanks to Dr. Powell, moved by Dr. Quain and seconded by Dr. Bristowe, was carried unanimously.

HARVEIAN SOCIETY.

A MEETING of the above Society was held on Nov. 7th, Thomas Buzzard, M.D., F.R.C.P., President, in the chair.

The Administration of certain Drugs by Electricity.—Dr. CAGNEY said that experiments by Eulenburg, von Bruns, and Hermann Munk have shown that certain drugs can be made to pass through animal tissues between the poles of a galvanic current. He had used iodide of potassium in this way for the cure of labyrinthine deafness and in lead palsy. Only very small doses, however, can be administered through the skin. The method is best adapted for the treatment of diseases of the skin itself or tumours immediately beneath, and of mucous membranes. The indications are those for the local use of iodine and iodide of potassium. In affections of the throat, syphilitic and simple, and especially in chronic pharyngitis, it is very useful. Nodes and gummata in accessible situations seem to yield readily to it; and this is equally true of tubercular ulcers in the later stages of syphilis, mucous patches, and papular syphilides. Amongst non-specific affections it serves well in the treatment of indolent ulcer, lupus, and acne, and to promote absorption in enlarged glands of scrofula. Benefit might be expected also in bronchocele and exophthalmic goitre. The method seems to possess certain advantages. By its employment it is possible to administer, in perceptible doses, a drug which is among the most useful we have—a drug, moreover, which is not readily tolerated by every constitution,—and in a manner which is least likely to disturb the system. It is conveyed directly to the part where its action is needed, and presumably in a nascent state—that is, a state of maximum activity. Finally, the lesion, if it be due to errors of nutrition—or if, as in metallic poisoning, it be attended with paralysis,—is at the same time benefited by the stimulating action of the galvanic current. In the application of the method great current strength is not needed. It is current density which is requisite, and the tissues under treatment must be brought directly in the path between the poles. The electrodes may be either sponges holding solution of iodide of potassium, or a modification of Dubois' conducting tube filled with the fluid. The latter gave the best results in Munk's physiological experiments, and doubtless they are to be preferred where the skin has to be penetrated. They should then be of large size. For the treatment of mucous surfaces an electrode may be made of a glass tube, which can be filled with fluid, having a zinc wire introduced through the bottom, and the mouth (cut to any desired curve) blocked with a fine sponge. This is connected, by means of the zinc wire, with one pole of a galvanic battery. The electrodes should be of large surface area. The fluid should be a saturated solution of iodide of potassium, and it ought to be applied, where possible, at both poles. Where this is not possible, the solution should be at the negative pole. The current should be passed for ten or fifteen minutes, and its strength will be determined by circumstances. Its direction should be reversed every minute. This is important, and it is one reason why both poles may be charged with advantage. Under suitable conditions the positive pole may be carried by a gold needle, which is plunged in a convenient situation beneath the skin. This expedient serves especially in the treatment of strumous glands, and perhaps of bronchocele. By its means the obstacle arising from the depth or inaccessibility of the part under treatment may sometimes be overcome.—Mr. JULER remarked that the method employed was one of great practical possibilities. He asked if one pole could be placed under the skin without great pain. He also inquired what was Dr. Cagney's experience of the use of electricity in tobacco amblyopia. He himself had found it of great service, and was prepared to expect even better results both in that form of amblyopia and in that due to lead poisoning, from the combination of electricity with the local action of drugs.—Dr. SPICER asked if Dr. Cagney had used this method in the treatment of atrophic rhinitis, where other remedies usually failed to cure.—Dr. FRANKISH pointed out that the drug used was employed only locally and in small quantities, and he believed that it was therefore little likely to be of use in syphilis. In syphilitic deafness especially large doses of the iodide were required to produce permanent effects.—Mr. HILL showed that it was certainly of use to influence the local lesion, even if the constitutional disease had to be treated separately.—The PRESIDENT would take an early opportunity of testing this new method. It was evident, he thought, that a very strong current must be used to cause the drug to pass through the tissues to any considerable depth. In the case of abdominal tumours great strength of current had been used, but only with non-polarisable electrodes, and it seemed essential to this new process that polarisation should take place.—Mr. JESSETT spoke of experiments at the Cancer Hospital upon the electrolysis of malignant tumours. Extraordinarily high strength of battery had been used, but it had been found very difficult to pass more than five or six milliampères through a tumour. He doubted if such great currents really reached the tissues. The skin must be pierced, and this, when done by electrodes, was very painful. In his experience electrolysis had no effect on cancerous tumours.—Dr. CAGNEY, in reply, said that the pain caused by passing electrical currents beneath the skin through needles was not unbearable. In all the cases which he had treated, he had not used excessively strong currents, nor did he think them advisable, but he employed saturated solutions of iodide of potassium. Only slight results could be expected when the current had to pass through the cuticle, and especially when two layers of cuticle were to be traversed.

The Anti-fermentative Treatment of Infantile Diarrhœa.—Dr. LUFF read a paper on the causation and the treatment of that variety of acute infantile diarrhœa produced by irritative products resulting from fermentations set up in milk either previous to or after ingestion. Dr. Luff, while admitting that though probably several irritating substances resulting from the fermentation of milk are factors in the production of the form of acute infantile diarrhœa under consideration, contended that the principal share of the blame rests with the milk or cheese ptomaine, tyrotoxicon, produced during the fermentation of milk under certain conditions. The treatment of acute infantile diarrhœa with the view of arresting the abnormal intestinal fermentation was then considered. Carbolic acid, creasote, resorcin, salicylic acid, salicylate of soda, naphthol, and salol have been given in the hope of checking the putrefactive changes in the bowels. Ringer has recommended the administration of a weak solution of bichloride of mercury in infantile diarrhœa attended with very slimy stools. Dr. Luff then referred to Illingworth's antiseptic treatment of infantile diarrhœa, which he had himself found most useful, and the employment of which had first directed his attention to the treatment he had employed. This consists in drug treatment and diet treatment combined. The drug treatment consists in the administration of 1-50th of a grain doses of the biniodide of mercury dissolved in iodide of potassium, combined with one-grain doses of chloral hydrate. It was shown experimentally that the soluble biniodide of mercury is an extremely soluble and diffusible salt, and that it possesses the property of combining with and rendering insoluble the milk ptomaine, tyrotoxicon. As regards the diffusibility of the biniodide of mercury, Dr. Luff has detected it in the urine within two hours of its administration. He has never found that the soluble biniodide of mercury itself acts as an intestinal irritant. Of eighty cases of acute infantile

diarrhœa treated by this method, the diarrhœa ceased within two days in seventy-two of the cases; in five of the remaining eight cases it ceased within four days, and in no case did it last over seven days.

Congenital Club-foot and Spina Bifida.—Mr. J. J. CLARKE showed the body of a female child which died a few hours after birth at full term. Hydrocephalus, spina bifida, and double talipes were present. The spina bifida was a myelocele. When the head was pressed there was a flow of liquid from the aperture of the central canal at the upper end of the myelocele, which at the same time was lifted up by the increase of pressure in the cerebro-spinal fluid behind it. At birth both hips and knees were fully flexed. The feet were crossed and fixed by four turns of the umbilical cord. The right foot showed marked equino-varus; the left had similar characters, but was also flattened. Dissection of the right side showed that the anterior ligament of the hip and the posterior ligament of the knee were short, and prevented extension. The ligaments on the inner side of the foot were similarly shortened, and the bones were considerably altered in shape. The deformity appeared to be fully accounted for by the mechanical conditions. The microscopical appearances of the nerves and muscles were normal.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

Malaria v. More Recognisable Causes of Diseases.

AT the meeting of the Society on Dec. 11th, Sir WILLIAM MOORE read a paper on Malaria. He observed that the diseases which malaria had been accused of causing comprised nearly the whole nomenclature; in fact, it put him in mind of the 122nd proposition of the Brunonian system, which declared debility to be the cause of intermittent as well as of every other kind of fever. But this direful agent malaria had not been discovered by chemical or any other means. All that we know of it has been deduced by inference from presumed consequences. Sir W. Moore then mentioned the various theories which had been propounded as to the nature of malaria, the last being that of Crudeli and Klebs. After reviewing what had been advanced with regard to the bacillus malariæ, the speaker observed that various authors had stated fever might be induced in half an hour after exposure, so that malaria might kill at once; were we, therefore, to suppose that the bacillus entered the system, took up its habitat in the spleen and marrow of the bones which it is said to affect as retired residences, multiplied, issued forth, and excited fever all in half an hour? Moreover, the bacillus malariæ has not been found everywhere where aguish disorders occur. It was said to require moist earth on which to germinate, but malarious fevers occurred on dry sand and on rock, where there was not the required moist earth. Neither would it be reasonable to suppose that every kind of earth surface would produce the same bacillus. It cannot be certainly stated, because a particular appearance is found in the blood of persons living in a particular locality, that such is the cause of a disease. The filaria sanguinis hominis, which Manson theorised as the cause of elephantiasis, is found in the blood of many persons apparently quite healthy. Similarly with the spirillum, presumed to be distinctive of relapsing fever. Then what becomes of the bacilli? They must leave the patient or he would not recover. But they do not infect the atmosphere or clothes, or the disease would spread through them. If after passing through the human body they are incapable of reproducing themselves, they must exist independently wherever malarious diseases occur, which, as above stated, it is not reasonable to presume. Again, everyone admits that secondary attacks of ague may occur months or years after the primary attack. Are we to suppose that the bacilli remain in the system for months or years seeking for an opportunity to manifest their presence? But it has been stated that inoculations of the bacillus have produced ague. No confidence can be placed on this. In a malarious country nearly everyone suffers from fever at some time or other. The very inoculation, especially if it were known what it was for, would excite an attack in a nervous subject even without the hypnotic sleep and "suggestion," of which we have heard so much recently. With reference to the existence of fever on sandy soils, where there is not the moist earth of the Roman marshes for the bacillus to vegetate in, Sir William Moore vividly portrayed the semi-desert district of western India as compared with the southerly district known as the Konkan. In the one the surface was sand, with substratum of sandstone; in the other, the ground was black alluvial earth. In the one water was 300 or 400 feet from the surface, in the other 3 or 4 feet. In the one there was not more than 5, 6, or 7 inches of rain annually; in the other 80 or 90 inches. In the one vegetation was of the most scanty description; in the other most profuse. In the one there were no swamps; in the other the whole country was intersected by tidal rivers, and was more or less swampy. The one country was exposed to the fierce hot winds of the desert; the other to the sea breeze. Yet in these districts, so different, malarious disease in proportion to population prevailed to about the same extent. The only resemblance was rapid alternation of temperature, with at some seasons excess of humidity. Then as regarded the prevalence of malarious fevers on rock, the same alternation of temperature was the case. A rock under a tropical sun in the daytime might be hot enough almost to cook a mutton chop, and at night be almost as cold as freezing point, the change accompanied by copious deposits of dew. As regards periodicity being a characteristic of malarious disease, there was no periodicity in a large spleen. Agues even were often so irregular as to lose all claim to periodicity, which implies regularity. Hectic fever, relapsing fever, and syphilitic fever were all periodic, but no one attributed them to malaria. There was periodicity in enteric, and even in continued fever. In fact, periodicity was a law of nature. When epidemics of so-called malarious disease presented among troops, or among civil populations, there were always other causes of disease recognisable. Instances of this were given, and of individual cases of fever there were few which could not be traced to a chill contracted in some way or other. We were formerly taught that congestions and inflammations were originated by the rush of blood to internal organs consequent on a chilled surface, and probably this teaching was not incorrect. It is more recently advanced that chill indicates disturbance of protoplasmic molecular correlations, or, in chemical language, that new bodies are formed in the protoplasm which act as veritable poisons. Why one person should get a liver abscess and another a fever from a chill might perhaps be explained by predisposition on the part of the organs affected. If this existed, fever would probably not be the first consequence. Exposure to prolonged heat caused first excessive action and then debility of the skin, which resulted in great liability to chill in tropical climates, a very slight reduction of temperature being there excessively felt. And most tropical climates are noted for great seasonal and diurnal changes. A person in the sun may experience 120° of heat, and at night a temperature of almost freezing point; such changes excite opposite physiological processes, and may be repeated in a spasmodic form, exactly as was the case with M. Brachet, who, after bathing several times at a certain hour in the cold river, experienced an attack of ague the first night he did not do so. The intensity of so-called malarious disease may be estimated by the degree of solar heat. With respect to agues in temperate climates, they are only found in humid, marshy localities, and they occur in the autumn, when changes of temperature are greatest, damp being added to cold; for damp cold has a greater power of abstracting heat than dry cold. The prevention of so-called malarious fever did not consist in stopping the formation of malaria, but in protection from sudden changes of temperature, from damp, from night exposure, especially when asleep, and in maintaining the vigour of the system by suitable diet. His position was briefly this. That so-called malarious fevers are caused by sudden abstraction of heat or chill, under the influence of cold, and more especially of damp cold; that these effects of chill are more marked in hot climates, because of the antecedent exposure to great solar heat, the anæmia and skin debility resulting from heat, and the disregard of suitable precautions; that the individual malady will be of a febrile character in the absence of predisposed or diseased condition of any organ; that the febrile paroxysm will be repeated or not according as temperament, heredity, habit, mental condition, anæmia, recurring chill, one or more, favour such repetition; that so-called malarious cachexia or anæmia is the result of the operation of heat on the system.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

A MEETING of this Society was held on Dec. 13th, Mr. Armstrong, President, in the chair.

Dr. REGINALD DUDFIELD read "Some Suggestions for a Revision of the Tables of Causes of Deaths." The need for such a revision, and the desirability of having it completed before the next census, were, he said, strongly felt by statisticians and sanitarians, and he thought that a conference of representatives of societies interested in the question, with others of the Royal Colleges, should be convened for the purpose. He exhibited in parallel columns the tables drawn up by the Society in 1874 with a view to secure uniformity in the reports of medical officers of health, those adopted by the Registrar-General in 1881, and his own. Any such classification should consist of a minor and a major scheme, for the use respectively of medical officers of health and of the Registrar-General, as well as of county authorities, differing only in the minuteness of the subdivisions. The conditions of the population as regarded number, distribution, and density, the relative proportions of the sexes at different age periods, the increase or decrease in the last decennium &c. were necessary to give real value to mere numerical statements; but a most important consideration was the calculation of the death-rates of infants under one year, and of children under five years of age on the numbers living at those ages. The common practice of calculating these deaths on the total population or on the deaths from all causes at all ages was utterly useless, since the proportion of infants and children to adults differed greatly in different communities. The local meteorology should be recording according to Mr. Glaisher's tables. The selection of the cause of death from among two or more diseases certified as occurring together or consecutively called for more precise instructions to superintendent registrars, and uniformity in the returns of medical officers was much to be desired.—In the discussion that followed, the necessity for breaking up the first class was pointed out by Dr. Newsholm, since some diseases, as measles and whooping-cough, had no relation to the sanitary conditions of a community of which the gross zymotic death-rate gave no true indication; while, as Drs. Corfield and Sykes observed, the medical officer of health was really concerned only with such diseases as were more or less preventable, and might well throw together as from "other causes" the majority of local diseases.

Mr. ST. CLAIR SHADWELL then read a short paper on the Need for Infectious Hospitals in the Extra-Metropolitan Suburban Districts, the populations of which were increasing with extraordinary rapidity, and in many places fearfully overcrowded. The public should be taught that such hospitals were not foci of contagion, but afforded the only means of isolating infectious cases occurring among the poor. He believed that in most instances the expense was the sole obstacle to their erection, and pointed out that, while Section 131 of the Public Health Act permitted the combination of districts for this purpose, Section 139 empowered the Local Government Board to compel such combination—a power which, he urged, ought at once to be put in force, although, in his opinion, the charge would be better laid on the county rate, as was that of lunatic asylums. To illustrate the urgent need for these hospitals, he stated that to his knowledge two cases of scarlatina on a farm had led to an outbreak in his own district with several deaths, and probably to many more in London, where the milk was consigned.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

THE opening meeting of the Surgical Section was held on Nov. 8th.

The PRESIDENT (Mr. Meldon) delivered an address on general subjects of surgical practice, giving scope for progress.

Operative Treatment of Tubercular Disease of the Knee-joint.—Mr. THOMSON read a paper on the Operative Treatment of Tubercular Disease of the Knee-joint. Having referred specially to the infective character of tuberculosis, he pointed out that where the condition of the synovial membrane demanded operation the disease was rarely so limited as to be moved by simple erasion. In some cases where the cartilages were apparently quite healthy the bone was found on section to be diseased, and yet this was the sort of case which the thoroughgoing eraser would regard as typical for his treatment. The securing of movement after erasion was being abandoned, and that being so, anchylosis could be more surely and quickly secured between two level bone surfaces, as in excision, than by the opposition of two irregular cartilage-covered surfaces. Shortening sometimes occurred where no operation was done, so that this objection could not be fairly argued as a result of excision. If the disease was extensive enough to lead them to the epiphysial line, they must go there even at the risk of shortening. He maintaind that excision was safer and more satisfactory than erasion. He had excised the knee seventeen times without a death; but in two of his cases, before adopting the combined methods of fixing by Thornley Stoker's dowels, and the use of his own hoop-iron splint, he had to amputate. In his hospital in fifty successive cases of excision of the knee-joint there had only been one death—a result which left little to be desired.—Mr. TOBIN thought that Mr. Thomson had not indicated clearly what cases ought to be submitted to operation, nor had he suggested an answer to the difficult question—"Shall I operate at once, or wait, and if I wait, how long?" It was important to determine whether an operation should be performed at once in every case diagnosed as tubercular synovitis, or whether it would be desirable to wait until the bones were attacked, or still longer till suppuration had set in. For his own part, he would wait longer than Mr. Thomson seemed to approve, having regard to the fact that by the use of Thomas's splint, complete rest and change of air, he had seen great cures effected. Moreover, he did not see that a resected knee had much advantage over an amputated leg supported by the modern improved artificial appliances. However, as regards the method of excision, he could not speak too highly of Mr. Thomson's operations, but he differed from Mr. Thomson on the advisability of early operation. He had tried Mr. Stoker's pegs, but in the cases in which he used them they gave little or no fixation. He sometimes found that while a straight limb was obtained for three or four years it afterwards became crooked.—Sir WM. STOKES endorsed Mr. Thomson's views as to the superiority of excision of the knee over the operation of erasion or arthrectomy. As to the time for operation, it was impossible to lay down a rule; but, speaking from his own tolerably large experience of the operation, he held that as soon as the surgeon satisfied himself he had to deal with tuberculous disease of the joint, the earlier the operation was performed the better was likely to be the result. He repudiated the statement put forward in more than one handbook of operative surgery, that knee-joint resection would soon be an operation merely of history. On the contrary, the operation never enjoyed a greater reputation than at present, and he believed its reputation was likely to increase. He did not at all agree with Mr. Tobin's estimate of amputation. The results from excision achieved both by his former colleagues and himself in the Richmond Hospital had been eminently satisfactory. He preferred a splint which he himself had devised to Mr. Thomson's, as ensuring absolute fixation and rigidity of the limb, and also as rendering unnecessary the dowelling as recommended by Mr. Thornley Stoker.—Mr. J. K. BARTON, referring to the question raised by Mr. Tobin, of the general advisability of the operation, said the real point was as to the procedure, and he had no doubt there were cases of disease of the synovial membrane in which erasion might be profitably performed instead of excision; but erasion could not be favourably compared with, or take the place of, excision in cases of tubercular disease. He did not sympathise with Mr. Thomson's advocacy of the removal of sound bone, but otherwise he agreed in the main with Mr. Thomson's views. Instead of Mr. Stoker's pegs he used strong antiseptic catgut, which did not yield until danger had passed away.—Mr. LENTAIGNE concurred with Sir William Stokes that excision was the best treatment for tubercular disease of the knee-joint, and ought to be performed as soon as the disease was recognised; and if the limb became crooked afterwards, it was the fault either of the surgeon or the patient, and very often of both.—Mr. BENNETT questioned the dictum that excision was the proper and right treatment once the diagnosis was tubercular disease. The vast majority of such cases in the upper classes were treated without excision. Patients had recovered from white

swelling of the knee with all the due care and rest that could be given in private practice. But where tubercular disease was running riot there was no longer the alternative of palliative treatment, and it then became a choice between excision and amputation. At the same time he had seen cases of recovery take place even after suppuration had set in.—Mr. SWAN observed that the spontaneous cure alluded to by Mr. Bennett was the established practice of a great many eminent London surgeons, including Howard Marsh and Owen, the latter of whom had extensive practice with children, and believed in letting the joint suppurate; but the average period of cure was three years—a longer time than could be afforded for hospital patients.—Mr. FRANKS said he had himself operated by excision for tubercular disease of the joint, in the case of a female patient, with success, as Mr. Swan and Mr. Barton could testify.—Mr. THORNLEY STOKER held that whereas excision was an operation of established repute, yet that of erasion was on its trial, and accordingly no decisive opinion could be expressed about it. As regards the time to operate, he had frequently had cause to regret delay, but he had never had cause to regret the premature performance of the operation.—Mr. CORLEY submitted that when the surgeon recognised pulpy thickening of the knee-joint, as it was called in the nomenclature of Sir Benjamin Brodie's day, palliative or medical treatment was worthless, and the sooner the patient got the chance of a good limb by operative procedure the better.—Mr. WHEELER held that where excision was necessary it should be done early.—Mr. THOMSON, in replying, said he had advisedly narrowed the scope of his communication by omitting conditions anterior or preliminary to the question of excision *versus* erasion, two operations which he found pitted against each other. As to the time to operate, the sooner the better, once the surgeon saw distinct pulpy degeneration of the synovial membrane. It was impossible to lay down a fixed rule as to the particular moment in a particular case. Every surgeon must be guided by his own experience. He did not think that Mr. Tobin was serious in comparing the results of resection and amputation. He regarded his observations as jocular. As to erasion, he could understand the procedure where there was perfectly localised tuberculosis that could be fixed and taken away; but the moment it became necessary to open the knee-joint and erase the synovial membrane as a whole, it was much better surgery to make a section, and excise the knee in the ordinary way. No doubt there were cases that got well, even though suppuration had set in, but the surgeon who had faith in expectant treatment must remember that he was running the cure of the knee against the patient's life; that he was running the risk of losing the limb altogether, and setting up the seeds of mischief which would ultimately carry off the patient.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, DEC. 5TH.

DR. GWYNNE, PRESIDENT, IN THE CHAIR.

Aneurysms.—Dr. HARGREAVES showed a specimen of Aneurysm of the Abdominal Aorta, just above the bifurcation. The sac was posterior, resting on the vertebræ, and of the size of a small orange. The patient, a man aged thirty, was a grinder, and the probable cause of the aneurysm was a strain in lifting a grinding stone. The cause of death was rupture of the sac into the abdominal cavity.—The PRESIDENT showed a specimen of Aneurysm of the first part of the Descending Thoracic Aorta. The patient was a healthy woman, aged thirty-six; married; no family. There was no history of gout, rheumatism, or syphilis, or of any injury. She complained chiefly of acute neuralgic pains shooting from the spine to the left infra-mammary region. She died about a year after the symptoms appeared. There were no other pressure symptoms. Post mortem an enormous aneurysmal sac was found filling up the entire cavity of the left chest. The necks of three ribs were eaten into, and the bodies of the corresponding vertebræ were eroded so as almost to expose the cord. The patient's only business was looking after a small baker's shop.—Dr. PORTER showed a specimen of Aneurysm of the Ascending and Transverse Aortic Arch. The symptoms had been those due to pressure on the trachea at its bifurcation, and on the root of the right lung. The patient, a man aged forty-eight, died of asphyxia.

Epithelial Cancer of the Vulva and Vagina.—Dr. KEELING showed this specimen, removed from an elderly single woman at the Jessop Hospital. An operation had been performed on the same patient twelve years before, the disease at that time occupying the clitoris and fore part of the vulva. The old cicatrix and neighbouring tissue had remained sound, the return of the disease being in the posterior half of the vulva, extending from this point up the vagina.

Strangulated Hernia.—Dr. KEELING also read a paper on two unusual cases of strangulated hernia, operated on in the Public Hospital and Dispensary.

Dislocation.—Mr. GARRARD read notes of two cases of joint dislocation. In one, a man aged forty-four had sustained a dislocation of the right femur on to the dorsum ilii, and of the left femur into the thyroid foramen, with other injuries, including fractured ribs and arm. The other case was one of subcoracoid dislocation of the humerus in a young man of five weeks' duration, which he reduced with difficulty by Kocher's method, after other means had failed. He asked the question whether it would not be justifiable in the case of a young man with a comparatively recent irreducible subcoracoid dislocation to open the joint, with the minimum of damage to the circumflex nerve and deltoid muscle, between the two heads of the biceps, clear out the glenoid fossa, and restore the head of the bone to its correct position, rather than leave the case to nature. He thought that a movable joint ought to be secured.

CARDIFF MEDICAL SOCIETY.

THURSDAY, DEC. 5TH.

MR. A. P. FIDDIAN, M.B., IN THE CHAIR.

Periostitis as a Cause of Death in Children.—Mr. A. P. FIDDIAN, M.B., read a paper on this subject. Two cases were described, in one of which the symptoms came on shortly after an accident, and ran so acutely that the whole leg became swollen from the foot upwards as far as the hip, and death ensued in six days. Post mortem, the tibia was found lying quite loose, bathed in pus, and the tissues of the thigh infiltrated with serum. In the other, a child of three, the illness began with convulsions, high temperature, and pain and swelling in the leg. It lived only fifty-six hours from the commencement of the seizure, and after death the shaft of the tibia was discovered to be bare, with a watery fluid around it.

Case of Extra-uterine Fœtation.—Dr. CAMPBELL gave the history of this case. Sixteen years ago the patient, thinking herself pregnant for the third time (eighteen years having elapsed since the last), engaged a nurse to attend her. Labour pains came on, but no progress was made, although a medical man who saw her pronounced her pregnant. After a week in bed she got up, but continued ill more or less for the next three years, and when Dr. Campbell saw her then for the first time the signs of a large abdominal abscess pointing near the umbilicus were present. This discharged for a few months, but after the sinuses had been closed for some time a large ventral hernia made its appearance. A binder supported this efficiently, but she used at intervals to suffer from abdominal symptoms, and finally died in October of intestinal obstruction at the age of fifty-eight. At the necropsy there was found in the pelvis a mass of stony hardness about the size of a child's head, occupying the seat of the uterus and right broad ligament. It was freely movable in all directions. On section with a saw, it contained an almost complete set of fœtal bones enclosed in a calcareous capsule. The immediate cause of death was the constriction of a knuckle of small intestine by a band of omentum.

TAUNTON AND SOMERSET HOSPITAL.—The annual report of the Taunton and Somerset Hospital and Victoria Jubilee Nursing Institute for 1889 shows that the total general income was £3765, and the total general expenditure £4448. A long-felt want in the working of the institution has been supplied by the provision of a casualty ward near the principal entrance, thus obviating the necessity of taking casual patients at once into the general wards. Important improvements have also been made in the sanitary arrangements of the hospital. Funds are urgently needed to carry out other important improvements and additions recommended by the medical staff.

Notices of Books.

A Manual of Pathology. By JOSEPH COATS, M.D. Second Edition. London: Longmans, Green, and Co. 1889.—The author of this valuable text-book has evidently spared no pains to render the second edition more complete than the first, besides submitting the book to a thorough revision. He has added chapters upon the nature and causation of disease in general, and upon teratology in the General Part; and in the Special Part, chapters upon the thymus and thyroid, and upon the eye and ear. A reperusal of the book confirms the favourable impression originally formed of it as an excellent, clearly-written, and comprehensive treatise, which occupies ground not so fully covered by any other English text-book. The opening chapter on Causation is suggestive in the statements put forward to show that almost all disease is due to the lack of resistance on the part of the tissues and cells to external agencies; such susceptibility being enhanced by congenital or inherited peculiarities, as well as by the circumstances of the individual life. The wide subject of teratology is briefly dealt with and systematically arranged, but the lack of illustrations to this part somewhat impairs its value. Under Thrombosis we fail to find any reference to the remarkable researches of Wooldridge, which, if substantiated, considerably modify the doctrine of coagulation enunciated by Schmidt and A. Buchanan, which is adopted here. The description of the Inflammatory Process and the sections upon Syphilis and Tuberculosis are very clearly written. As to the section on Tumours, the subject of cysts, always a difficult one, might with advantage have been more fully treated, particularly in connexion with the recent suggestive statements of Bland Sutton. Bacteriology, which has added so much to the labours of all writers on pathology, is dealt with succinctly and with critical acumen. We note that the author regards both Fränkel's and Friedländer's "pneumococci" as belonging rather to the group bacillus than to that of micrococcus, and he suggests, what is highly probable, that pneumonia may possibly have relations to other bacteria besides these two forms. The extensive *rôle* assigned to Fränkel's "diplococcus" as a cause of other inflammatory affections than pneumonia should also be borne in mind. The subject of pyrexia is introduced by physiological considerations on normal heat-production and its regulation, and the various theories of fever are impartially discussed. The morbid anatomy of the various organs, which forms the Special Part, and occupies about two-thirds of the volume, is notable for its systematic and methodical descriptions. We might particularise the sections upon diseases of the heart and bloodvessels, the nervous system, lungs, and female generative organs as samples of the thoroughness with which Dr. Coats has undertaken his task; but, indeed, the whole is complete and well-proportioned. The illustrations are very numerous and excellent, and the book has been produced in a manner highly creditable to the publishers. We have no doubt that it will continue to be widely read and consulted by teachers as well as by students.

Cancer and its Complications. By CHARLES EGERTON JENNINGS, F.R.C.S., M.S., M.B. London: Baillière, Tindall, and Cox. 1889.—We confess to some disappointment on a perusal of this work, for we not unnaturally looked for some new light to be thrown either upon the nature or treatment of cancer. On the other hand, the work can hardly be regarded as other than a fairly careful compilation of well-established facts, intended to emphasize the local origin of malignant disease, and the need for its early and entire extirpation. Although embracing under the term "cancer" all varieties of sarcoma, as well as of carcinomata, it will be found that the author deals more especially with the latter in his subsequent chapters. He reproduces at considerable length the debate on cancer before the Pathological Society in 1874, and includes in the book statistics of amputations furnished by Mr. Page of Newcastle, besides freely citing cases published by other authors. It may be noted that he believes Chian turpentine to have "a specific action of some sort" upon cancer (p. 66), and thinks there are undoubted cases of cure by its use. Whilst giving Mr. Jennings every credit for his object in writing such a book—and in our view the doctrine he enforces is the most reasonable and hopeful one to be taken of this class of disease,—we cannot help thinking that he has been too ambitious. The subject of cancer in all its bearings has grown to vast proportions, and those who would advance our knowledge of it must be prepared to devote many years to its study. There is room for such a treatise in medical literature, but it must be comprehensive and exhaustive, pathologically and clinically complete.

L'Œuvre de C. J. Davaine. Paris: J. B. Baillière et Fils. 1889.—*Traité des Entozoaires.* Par C. DAVAINE. Deuxième Édition. Paris: J. B. Baillière et Fils. 1877.—The name of Davaine, who died in 1882, will always be linked with the history of the pathology of septic disease. To him is owing the discovery in 1850 of the bacillus anthracis, which he termed *bacteridium*, and numerous experiments upon the true significance of this micro-organism in that disease. To him also we owe much concerning the interpretation of septicæmia. Davaine may, indeed, be said to have been the forerunner of Pasteur and Koch in those departments of inquiry with which their names are associated. Besides this work, he pursued during his industrious life many other scientific investigations. His classical monograph upon the entozoa, for instance, will bear comparison with the perhaps better known works of Cobbold and Leuckart. This is the second of the two books named above, which has been courteously sent to us by M. A. Davaine, who has edited the first-named volume, containing the collected writings of his father upon anthrax, septicæmia, bacteria, parasites, teratology, &c.—many of the articles being reproduced from the "Dictionnaire Encyclopédique des Sciences Médicales." The volume is prefaced by a memoir of the author, from the pen of Professor Laboulbène—a memoir read before the Société de Biologie, of which Davaine was one of the first members, and at which so many of his researches were presented.

The Asclepiad. No. 24, Vol. VI. By BENJAMIN WARD RICHARDSON, M.D., F.R.S. Longmans, Green, and Co. 1889. Dr. Richardson has selected for the subject of his memoir in this issue of his interesting journal Sir Francis Bacon, as a master of physic, and, as usual, presents his readers with an admirable autotype portrait. Bacon occupies so prominent a position in science that the inclusion of his name in the list of those already given by Dr. Richardson is fully justified. Needless to add, the memoir is written *con amore*, and is full of the wise precepts of Bacon upon matters pertaining to physic. In "The Medical Pilgrim's Progress" Dr. Richardson reproduces an introductory address he delivered thirty-two years ago at the Grosvenor School of Medicine, and the present generation will be glad to hear the hopeful and helpful words addressed to their precursors, and will benefit by them. Continuing his studies on the synthesis of disease, Dr. Richardson deals with melancholia, dreams, and delirium, as influenced or induced by the action of sulphur compounds (especially mercaptan), and he also summarises his views upon zymosis. There is much in his suggestive thoughts worthy of reflection, and it may be recalled that, to a certain extent, Bouchard has followed similar lines in his main pathological inquiries. Another paper, "Medicine

and the Alcohol Controversy," is, as may be expected from its author, thorough and uncompromising. No doubt a considerable and beneficial change has taken place in the attitude of the profession on this subject, but not to the extreme limits advanced by this earnest temperance reformer.

Manuel Pratique de la Garde-Malade et de l'Infirmière. Publié par le Dr. Bourneville, aux Bureaux du *Progrès Médical.* 4me Edition, revue et augmentée. Paris, 1889.—There are few more indefatigable in the cause of medical relief than the able editor of the *Progrès Médical*, Dr. Bourneville, who is also director of the municipal schools of nursing; and amongst his numerous useful undertakings none have been more appreciated than the courses of instruction for nurses which he organised in the latter capacity. In connexion with this scheme he published a series of handy volumes, containing the text of the lectures delivered to the nurses by competent teachers. The series has now reached its fourth edition and embraces five volumes, treating of all branches of knowledge required by the trained nurse, so that the publication may be held to constitute a veritable manual of the art and science of sick nursing. The instruction appears to us to be admirably adapted for the purpose in view, being conveyed in simple language and not overburdened with detail or theory. Prefixed to the first volume will be found the full syllabus of the courses as carried on at the Bicêtre, Salpêtrière, and la Pitié Hospitals. These volumes comprise—1. Anatomy and Physiology. 2. Hospital Administration and Management, &c., which embraces an interesting descriptive account of the foundation and maintenance of the Paris hospitals, and of the nursing profession, in which is to be found a defence of the action taken to replace the religious orders of nurses by lay bodies, an action diversely viewed in many quarters. 3. Dressings, which, by itself, forms an excellent manual of surgical nursing. 4. A volume devoted to various topics, such as lying-in, the care of the insane, the administration of drugs and the forms in which they are given, besides a vocabulary of medical terms. 5. Hygiene, in which M. Sollier in twelve lectures, four of which are devoted to the important subject of diet, has succeeded in imparting a large amount of useful information. Whatever may be thought of the wisdom of the measures taken in Paris to reorganise the system of hospital nursing, there can be no two opinions upon the desirability of imparting to nurses such an amount of scientific information as may increase their competence and awaken their intelligence. Over and above all such knowledge there must always be the essential attributes of patience, kindness, gentleness, and devotion, without which no one can claim to be a thoroughly efficient nurse.

Irish Medical Practitioner's Guide. By Professor R. J. KINKEAD, M.D. Dublin, with a preface by A. H. JACOB, M.D., &c. Dublin: John Falconer, 1889.—This substantial work, which contains specially valuable information for medical practitioners in Ireland, and particularly for those holding public appointments, such as poor law, infirmary, prison, lunacy, Admiralty, military, police, medical officers of health, and public vaccinators, is published by and with the authority of the Irish Medical Association. The care of the sick population in Ireland devolves to a very great extent upon State-supported functionaries; accordingly his responsibilities are so much the greater, and it is with a view to explain those responsibilities and how best they may be fulfilled that this book has been written. The third portion of the volume before us is devoted to epitomising the law by which the practice of the profession at large is governed, without special reference to the Irish medical services. A chapter on "malpraxis" serves a good purpose by enabling the medical practitioner to avoid the many pitfalls which the exigencies of practice place in his way. We can recommend this book for perusal and study.

The Victoria Cross: by whom, where, and how won. By T. E. TOOMEY, late Colour Sergeant, 1st Battalion, the Royal Irish. Pp. 67. London: Boot and Son. 1889.—This little volume gives a nominal return of all who have gained the Victoria Cross, with the acts for which in each instance it has been awarded. The Order was instituted in 1856, but a considerable number of officers and men were decorated for acts of valour done in the Crimean War. It has been conferred on 404 persons, the first having been Mr. (now Rear-Admiral) Lucas, and the last, Surgeon Crimmin of the Bombay Medical Service (since the issue of the book Surgeon Le Quesne has also obtained the Victoria Cross). Of the total number, 178 were commissioned officers, 3 in the Indian Civil Service, ranking as officers, and 223 warrant officers, non-commissioned officers, and men. Of the commissioned, 15 were medical officers and one an army chaplain; of the non-commissioned, one was lance-corporal, Army Hospital Corps, and one, hospital apprentice, Indian Medical Service. With the exception of one, who was decorated for rescuing twenty-five men from drowning, at Andaman Islands, the medical officers all had the Cross conferred on them for services connected with the wounded in the field. The proportion of medical to the other officers is one in twelve. Of the 404 who gained the Cross, 211 are believed to be still alive, and 64 to be still serving. Of the medical officers, the names of 13 still appear in the Army List, but only one of them is now on the effective list. The book appears to have been carefully compiled, and is interesting as a record of deeds of valour.

Guide Médical à l'Exposition Universelle Internationale de 1889 à Paris. Par MARCEL BANDOUIN. Premier Fascicule. Paris: Aux Bureaux du *Progrès Médical*, et R. Lecrosnier et Babé. 1889.—Those who visited the Paris Exhibition, and others, will be glad to have in permanent form some record of the exhibits in the wonderful collection now being dispersed. M. Bandouin deserves thanks for editing this "medical guide," of which this first fasciculus contains descriptions (amply illustrated) of all the novelties in surgical and scientific instruments exhibited by various makers of European reputation. The utility of so carefully edited a catalogue need hardly be pointed out, and its publication should be much appreciated.

By Pike and Dyke: a Tale of the Rise of the Dutch Republic. By G. A. HENTY. With Page Illustrations. London: Blackie and Son, Old Bailey.—*Grettir the Outlaw: a Story of Iceland.* By S. BARING-GOULD. With 20 Page Illustrations and Map. Blackie and Son.—*The Hermit Hunter of the Wilds.* By GORDON STABLES. With 4 Illustrations. Blackie and Son.—*Down the Snow Stairs.* By ALICE COCKRAN. With 60 Illustrations. New Edition. Blackie and Son.—*Laugh and Learn: the Easiest Book of Nursery Lessons and Nursery Games.* By JENNETT HUMPHREYS. Profusely Illustrated. Blackie and Son.—Messrs. Blackie and Son have effectively contributed to the illustrated literature of the season by the issue of the above enumerated handsome volumes. They do not make special claim to our notice as medical journalists, but none the less are they worthy of mention here, not alone on account of the value of their literary contents, but also for their pictorial wealth and the taste with which they are got up. The first three of the above-mentioned books are tales of adventure, and that of a wholesome and instructive kind, either of them being eminently suitable as a present for boys, who cannot fail to be delighted with the stirring narratives of personal prowess exhibited by the heroes of the stories. The fourth on the list is intended for the delectation of the youth of both sexes, but more especially

for girls, and presents, under the guise of a fairy tale, much information of a useful character in a form easily assimilable by the juvenile mind. The last-named is addressed to very young readers, to whom it will be welcome as combining unlimited amusement with pleasant means of instruction.

Love of Money the Root of all Evil. By ALEC FEARON. London: Swan Sonnenschein and Co. — This is a cheerless book, in which the worst side of human nature is portrayed with a relentless fulness and realistic detail. Its moral, coming when it does, appears to be that it is quite possible for a prisoner falsely accused of poisoning to be convicted on inconclusive evidence. That this is so one would hardly venture in general terms to deny; but the sad fate of Nellie Parsons was brought about not only by the most extraordinary sequence of untoward events, but also by singular supineness and precipitation on the part of those whose province it was to be her friends. The plot, though interesting, is not strong enough to prove much; but in truth we suspect that the writer's ambition is rather to be vivid than convincing. Vivid he is; and if his subject were less distressing, his portrayal of it would be delightful. As it is, there are many readers who will find fascination, and even charm, in its dense shadows and lurid lights. We, for our part, prefer to read for amusement less melancholy books.

Medical Diaries &c. for 1890.—We have received a large assortment of medical diaries and pocket-books for 1890, all of which appear to be at least equal to their predecessors in completeness and finish. The specimens forwarded by Letts's Diaries Company, Royal Exchange, E.C. (Publishers: Cassell and Co., Limited, London, Paris, New York, and Melbourne), are accompanied by an interesting little pamphlet, entitled "Notes on Celebrated Diarists and their Diaries." Amongst others, accounts are given of the diaries kept by that prince of diarists, Mr. Samuel Pepys, who for ten years entered up his journal with exemplary regularity, filling six volumes closely written *in shorthand;* of General Gordon, to whose diary, written, in the absence of a pocket-book, on the backs of telegram forms, we are indebted for the only reliable narrative obtainable of the events which led to his death; of Dr. Livingstone, who in his notes, written on old newspapers, has handed down to posterity an invaluable record of the habits of men, animals, birds, and fishes in Africa; and of Charles Dickens, who was a habitual diary keeper. Whilst endorsing Captain Cuttle's excellent advice, "When found make a note of," we think it hardly necessary to carry the practice out with the scrupulous exactitude of the worthy Mr. Pepys, in whose diary we find the following amongst many similar entries:—"Mar. 13th, 1664–5: 'This day my wife begun to wear light-coloured locks, quite white almost, which, though it makes her look very pretty, yet, not being natural, vexes me, that I will not have her wear them.' Sept. 17th, 1666: 'Up betimes and shaved myself after a week's growth; but, Lord! how ugly I was yesterday, and how fine to-day.'" As a complete pocket companion for medical practitioners, we can recommend Letts' "Ideal Medical Diary;" but, indeed, the variety of pocket-books and diaries issued by this firm is so extensive that the most exacting requirements can be suited.—A handsomely got up pocket-book is "Smith's Visiting List, Physicians' and Surgeons' Diary, Almanack and Book of Engagements" (forty-fourth year), published by Hazell, Watson, and Viney, Long-acre, W.C. In addition to the ruled pages for the visiting list and journal, this pocket-book contains much useful printed matter, including tables of the principal poisons and their antidotes, of fees legally claimable by medical men, a pharmacopœial companion, a table of eruptive fevers, and other information indispensable to the busy practitioner.—Pettitt's Diaries, published in over fifty different sizes and varieties (Griffith, Farran, and Co., Newbery House, London, and Sydney), include convenient descriptions for the office or pocket, and are published at extremely low prices.—We have also received from Mr. Henry Frowde, of the Oxford University Press Warehouse, samples of the "Finger" Prayer Book. This miniature book, containing 670 pages, weighs in limp binding about three-quarters of an ounce, and is only one inch in breadth, three inches and a half in length, and one-third of an inch in thickness. The volume is beautifully got up, and excellently printed on Oxford India paper. It is a pretty and curious example of the bookbinder's and printer's art; but we question whether we could advise the habitual use of such very small type, clear and legible though it be. An edition is also issued which omits the calendar and the occasional services, thus reducing the thickness by one-third, and bringing the weight to hardly more than half an ounce.—*The Law Almanack* for 1890 (published at 1, Warwick-court, Holborn) has been considerably enlarged, carefully revised, and corrected to date, and a new feature introduced—viz., historical and chronological information.

The Charities' Register and Digest, 1890. Third Edition. London: Longmans, Green, and Co.—This is a classified Register of Charities in or available for the metropolis, together with a digest of information respecting the legal, voluntary, and other means for the prevention and relief of distress, and the improvement of the condition of the poor. The work, which is elaborately indexed, contains an introduction by C. S. Loch, Esq., Secretary to the Council of the Charity Organisation Society, London. There is also an appendix containing full information as to benevolent institutions, friendly societies, trade societies, registry offices, and savings banks.

Blackie's Modern Cyclopædia (Fir–Ilo).—Vol. IV. of this useful series commences with the word "Fire," which is described briefly and clearly, together with its compounds, such as fire-brigade, fire-damp, &c., and ends with "Ilorin," an important trading town in the Western Soudan. The maps, illustrations, and portraits are numerous and excellent, whilst the information given under the various headings appears to be full and accurate.

New Inventions.

APPLIANCE FOR THE TREATMENT OF PROLAPSUS RECTI.

As relaxation of the lower bowel, leading to its extrusion and prolapse, is of very common occurrence, more especially in the young, and is attended with so much inconvenience, and, if neglected, by such untoward results, a means of obviating recurrent prolapse without undergoing an operation of any kind—nearly always so strenuously opposed by both parents and patients—should be accorded extended trial. I have almost always found that liquid, solid, or semi-solid applications *per se* were comparatively useless, having also the disadvantage of being more or less painful, and in some cases even producing evacuation followed by extrusion of bowel. The foregoing refers more particularly to prolapse resulting from costiveness, natural delicacy with straining, and threadworms. However, the appliance I have devised will, I believe, meet the requirements of every case, whether arising from vesical stone, urethral stricture, piles, prostatic and rectal disease, or the other causes before mentioned, by giving support when and where needed—viz., at the time of going to stool, and at the junction of skin and mucous membrane. I now append a brief description of my recto-perineal pad. It consists of a

strap, which is buckled round the waist, having an india-rubber band passing down between the legs from the middle of the back, where it is attached to the waistband. Before reaching the median raphe, this perineal band divides into two, and the ends are brought out in front and hooked up to the waistband on either side, permitting of any degree of tension or laxity, as they are provided with a regular series of holes. There is a sliding air pad or cushion, having a hole in its centre and provided with an easily dilatable flange surrounding the hole; the flange permits of the passage of fæces, but keeps the bowel in position. The pad can be removed at will for cleansing

FIG. 1.

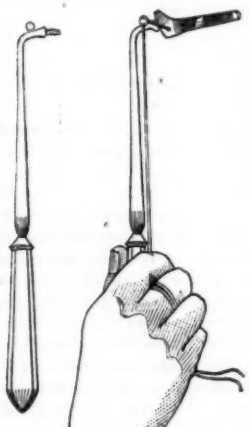
FIG. 2.

purposes by simply unhooking the ends of the perineal band and sliding it off; it is kept in position by buttoning to the under surface of the rubber band. The mouthpiece of the inflating tube is covered with a reversible chamois hood, and lies comfortably in the hollow of the back. This appliance has the advantages of (1) facility and simplicity of application, (2) comfort in wear, (3) cleanliness, and (4) efficiency, and was made for me by Messrs. Arnold of West Smithfield. The woodcuts show it in position, and the pad separated from bands.

G. E. J. GREENE,
Medical Officer, Ferns District, County Wexford.

MODIFICATION OF O'DWYER'S INTRODUCER FOR INTUBATION.

THE instrument here figured was made for me by Messrs. Mayer and Meltzer, and its use has materially facilitated the operation of intubation, both to myself and others. The original instrument appeared to me to have the following drawbacks:—1. The spring claws for pushing off the tube into the larynx almost invariably failed in my hands, and, by projecting over the top, made it a difficult matter to push the tube home with the forefinger of the left hand. 2. When the tube had been oiled and placed on the pilot, it frequently slipped off just as it was being introduced into the mouth.



The modifications and advantages are as follows:—1. A small ring placed at the end of the stem on the right side. The string, having been threaded through the hole in the shoulder of the tube, is passed through the ring and held against the handle with the forefinger of the right hand. This effectually prevents the tube from slipping off the pilot, keeps the string close against the stem, and, being on the right side, does not interfere with the manipulations of the left hand. 2. The spring claws are dispensed with altogether, and the tube can readily and with certainty be pushed off the pilot, when introduced into the larynx, with the left forefinger. This makes the instrument a much cheaper one, and more easy to clean. This is an important point if there is only one set of instruments, which may have to be used both for cases of diphtheria and other emergencies.

W. H. C. STAVELEY.
Victoria Hospital, Chelsea, S.W.

THE DENTOILETTA, OR DENTAL TOILET MIRROR.

THIS is a simple and ingenious arrangement for enabling all persons to examine their own teeth. As will be seen from the illustration, it consists of a small hand mirror and a mouth mirror, both mounted on ball-and-socket joints, and attached to the same handle, the distance

between the two mirrors being such that the light is focused upon the small one. It should be of value as directing attention to the teeth, and is not meant to supersede periodical professional examination. It is a well-made, handsome, and useful adjunct to the toilet table. The patentee is Mr. E. A. Tice, 12, Cumberland-park, Kensal-green, W.

THE DWELLINGS OF THE POOR.

A DEPUTATION from the Housing of the Working Classes Committee of the London County Council waited upon Mr. Matthews at the Home Office on Monday afternoon in connexion with the Acts bearing upon the subject of the dwellings of the poor. The deputation (which included amongst its members Dr. G. B. Longstaff and Mr. Shirley Murphy, medical officer of health to the London County Council) was introduced by Earl Compton, who said that the points which he had to put before the Home Secretary were five: (1) That the medical officer of the Council shall have equal authority with the local officer; or, failing that, (2) the Council should have the same powers of compulsory purchase as the existing Acts give in regard to obstructive dwellings; (3) that where premises are required to be purchased the owner should not have the option of retaining the site; (4) that the term "obstructive building" in the Act of 1882 should be further defined; and (5) that in lieu of the optional appeal to the High Court given by Section 9 of the Act of 1868 such optional appeal should be to the Local Government Board. He suggested that these amendments might be effected by a few short clauses introduced into a Bill.

The Home Secretary, in his reply, said that the Government hoped during the approaching session of Parliament to pass an Act consolidating the existing legislation regarding workmen's dwellings. He was afraid, however, that they would imperil the chance of its passing, and run a great risk of wrecking the whole thing, if they were to try to make it also an Amending Act, which by touching vested interests would be certain to provoke serious opposition from some quarter or another. The Government would give the whole matter their most careful consideration.

THE LANCET.

LONDON: SATURDAY, DECEMBER 21, 1889.

THE remarkable epidemic malady which is just now attracting so much attention is one of those diseases the records of which go far back in the history of medicine, and yet it is one concerning which there is a singular lack of *precise* knowledge. Not, indeed, as regards the mode of its occurrence and spread, for literature abounds in careful and complete descriptions by many trustworthy observers[1]; nor yet as regards its symptomatology and its course, for here, too, there is ample material supplied by the physicians of the past. But it is as to its nature, its etiology, that we are so much in the dark—just in that field, in fact, in which the science of the nineteenth century has made so much advance with respect to disease in general. In its mode of diffusion influenza, in more than one feature, stands almost alone among epidemic diseases. In the first place, it spreads with remarkable rapidity once it is established in a centre — as witness the recent accounts of its progress in St. Petersburg, Vienna, and Berlin. Secondly, it tends more or less rapidly to become pandemic, for although minor and comparatively limited outbreaks are often recorded, yet its liability to diffusion over whole continents, and indeed from one hemisphere to the other, is one of the best-known facts concerning it. The disease has therefore no geographical limitation, it is apparently uninfluenced by season or climate, and its virus travels over sea and land in a manner so baffling and contradictory to the ordinary conceptions of the transmission of infection as to render any simple explanation of its nature almost impossible. It has been compared with cholera in the manner of its diffusion; but the analogy is by no means exact, for influenza, unlike cholera, is not apparently confined to the lines of human intercourse, although there are not wanting some who claim both for cholera and influenza a propagation by contagion. But in the case of influenza, the rapidity with which a whole population may be smitten appears to exclude contagion, which otherwise would seem so obvious an explanation of its spread; and a further point in disproof of this is the almost simultaneous outbreak of the epidemic at different parts of the same country. It is not surprising, therefore, to read of telluric and atmospheric influences as being accountable for the pandemic spread of influenza; yet it is clear that such a view is purely hypothetical. Influenza has not yet been studied in respect to its etiology so profoundly as have many other epidemic diseases. There is, for instance, hardly any record of bacteriological research into this disease, owing partly to the difficulties of such an inquiry, but mainly perhaps to the fact that well-marked and widespread outbreaks have not occurred within recent years. There are not many physicians now in London who had to deal personally with the great epidemic of 1847–48, of which the late Dr. PEACOCK has left us so interesting a study; and since that time no notable outbreak has occurred in this country. And here we would remark that there is, and from the nature of the case must necessarily be, some difficulty in identifying influenza. There are epidemic and seasonal catarrhs, with which the English people are specially afflicted, which are often termed "influenza," which seem to be contagious, and which, indeed, run a course similar to, if less severe than, the affection that is now engaging attention. Yet there are essential differences between cases of the one class and those of the other—differences in the severity of fever, the occurrence of complications, the mortality, as well as in the main fact of all—viz., the wide distribution of influenza proper to which we have just alluded.

It is more than probable that we shall be visited by this epidemic. Already we hear of an unusual prevalence of catarrh in the metropolis; but, in view of the season, one must be cautious in admitting that the disease which has made so many victims on the Continent has really arrived here. When it does come it will speedily make its presence felt, and the difference between an ordinary or even an unusual prevalence of catarrh and of true epidemic influenza will be soon appreciated. The population of London has more than doubled itself since 1847, when it was calculated that at least a quarter of a million were attacked by the complaint; so if it really comes we may expect colossal figures and an epidemic which will "beat the record" in that respect. Let us hope, however, that its type will be mild; for, although in proportion to other epidemic diseases, the mortality from influenza is very low (2 per cent. or less), yet experience shows that to the very young and the aged, to the debilitated from disease or impoverishment, its effects are, directly or indirectly, very serious. In 1847 the mortality in London during the prevalence of the epidemic rose in proportion to the previous mortality in the observed districts. Our want of complete knowledge of the nature of the disease renders it difficult to suggest measures of prophylaxis other than the uniform observance of general hygienic rules. The treatment of the attack itself, marked as it is by high fever, catarrh of the respiratory and gastro-intestinal tracts, must be mainly restorative, directed to the relief of symptoms. The use of quinine will doubtless be largely replaced by antipyrin and antifebrin, which are reported as having been freely prescribed in Berlin with benefit. The opportunity for exact clinical records which may arise will, we trust, be largely embraced, and thus our knowledge of one of the most interesting affections to which mankind is liable be materially increased. In the matter of thermometric observation alone there is ample scope for enriching literature with interesting studies. Should we be visited by the disease, we doubt not that full advantage will be taken by the practitioners of this country of the ample material that will fall to them; and we would further suggest, in the interests of scientific medicine, that, as nearly half a century has elapsed since the last outbreak of the disease in England, no means should be left untried to

[1] M. Ch. Eloy, in Rev. Gén. de Clin. et Thérap. (Dec. 12th), points out that the recorded epidemics increase with the progress of the centuries—viz., from 1 in the eleventh century to 45 (now 46) in the nineteenth. But this is hardly more than can be expected, with growth of literature, for there are countries—e.g., France—where the disease is singularly frequent in its recurrences. It is the pandemics which are seemingly rarer than they used to be.

ensure a full record of the occurrence of cases if it should again appear in an epidemic form in the British isles.[2]

THE extreme difficulty and the urgent importance of a definite diagnosis of phthisis at the earliest possible period are universally acknowledged. Both with a view to either calming or confirming the patient's fears, and of insisting upon such an alteration of the mode of life and such remedial measures as offer the best prospect of arresting the tubercular process, an early and confident diagnosis is eminently desirable. Hence Dr. HARRIS'S recent contribution to the subject in our columns has no doubt received the careful attention of our readers. On some of his points there will be general agreement. That a history of hæmoptysis, especially of repeated slight hæmorrhages, is of great significance no one will question. If we can certainly exclude the spurious forms of hæmoptysis, such as those from the gums and pharynx, and if the patient be not a "bleeder," the fact that he has repeatedly spat blood raises a very strong presumption that he is the subject of tuberculosis. That family history is also very important most authorities, in this country at least, will allow. There is at present a tendency among continental writers, who are usually adherents of the bacillary and contagionist view of phthisis, to minimise the hereditary factor in its causation; but this is probably only a temporary swing of the pendulum, the clinical evidence that phthisis is strongly transmitted being apparently irrefragable.

It is when we come to define the earliest positive physical signs of phthisis that we find it difficult to lay down any rules that do not admit of large exceptions. Dr. HARRIS attaches weight to impaired movement at one or both apices, and no doubt when present this is very important. It may be best recognised, not by simple inspection, but by the examiner standing behind the patient, placing his hands upon the sub-clavicular region of each side, and noting whether both sides rise equally and readily during inspiration, or whether there is, as it were, a delayed rise on one side. Dr. HARRIS points out another sign which, he says, has not received in this country the attention which it deserves. This sign is the lower limit of pulmonary resonance in the supra-clavicular and supra-scapular regions on the affected, as compared with the sound, side, which may be detected in cases where no dulness is present. This sign may, however, be obliterated by the presence of emphysema in the neighbourhood of the diseased patch of lung. Any dulness or tonelessness on percussion at one apex must, in a doubtful case, be regarded as of great significance.

The auscultatory signs present at a very early stage of phthisis offer great variety, and need a very careful estimate to determine their true significance. In some cases where, on general grounds, the diagnosis of phthisis seems practically certain, the most careful and diligent auscultation fails to detect any abnormality. This is by no means so surprising as at first sight it appears to be. We know that it is not very rare for all auscultatory signs to be absent during the first two or three days of pneumonia, although we feel certain that consolidation is going on. This is very probably explained by the hypothesis that in such cases the process is deep-seated in the lung, and that the sounds produced by the consolidation are masked by the normal vesicular murmur. In like manner, early phthisis may be attended by a scanty deposit of tubercles, not sufficiently superficial to produce auscultatory signs which can be heard above the normal breath sounds.

Great importance must be attached to the character of the breathing in these cases. If the vesicular murmur be feeble, or somewhat harsh or bronchial in quality, or if expiration be much prolonged, we are justified, in the absence of any other cause adequate to produce these signs, in regarding them as probably tubercular in origin. It is of the first importance, however, to make certain that these signs are present, either solely, or at least in a more marked degree, on one side. The puerile breathing of children and the somewhat bronchial breathing normally present under the right clavicle are fruitful sources of error with beginners. Dr. HARRIS utters a caution against relying too much upon prolonged expiration, if no other sign be present; and no doubt it is insufficient of itself to warrant any safe inference. That peculiar form of interrupted breathing, called by French writers *respiration saccadée*, was formerly generally relied upon as a sign of some value in early phthisis, but probably most authorities will now admit that this phenomenon is often of neuro-muscular origin, and cannot therefore be depended upon to give us any satisfactory indications of the condition of the lungs.

Adventitious sounds form the last group of the physical signs of early phthisis. There can be no doubt that they vary much from day to day, which is not surprising when we reflect that they owe their origin to the varying degree of bronchial catarrh present in the neighbourhood of the tubercular deposit. The supra-scapular region should be as carefully investigated as the sub-clavicular, as many observers are of opinion that it is on the average the earliest seat of the deposit. The most characteristic adventitious sign of the earliest stage is the presence of a few dry crepitations, which do not disappear on taking deep breaths and are rather accentuated by coughing. There are cases, however, in which the earliest adventitious sign is a musical râle or rhonchus, identical acoustically with that heard in bronchitis, but deriving its grave significance from its distribution. Pleuritic friction may also be one of the earliest signs of phthisis, and if apical in distribution should excite our suspicion. As regards the diagnostic value of the presence of the bacillus in the sputum, we are in this position. Its presence is pathognomonic of tubercle, but failure to find it is of very little value, as the bacilli may be few in number and may escape detection, even at the hands of a careful observer.

On the whole, while the ear diagnosis of phthisis is admittedly difficult, few mistakes will be made by the practitioner who balances signs, symptoms, and history (personal and family) carefully and guardedly, and who does not allow himself to be led astray by any single indication

[2] One of the best accounts of influenza is that by the late Dr. Parkes in Reynolds' Syst. Med., vol. i., 1870. See also Wilson; Pepper's Syst. Med., vol. i., 1885; Biermer; Virchow's Handbuch, v., 1854; Dr. Peacock, "Influenza," 1848; and Quain's Dictionary. The history of the disease down to quite recent periods is to be found in Hirsch's Hist. and Geog. Pathology (New Syd. Soc. Trans.), vol. i.

Needless to say, finally, the use of the thermometer is imperative, and may serve to clear up many doubtful cases.

A CHARGE of libel was tried on Dec. 3rd in the Queen's Bench Division, before Mr. Justice CAVE and a special jury. The plaintiff was Mr. WILLIAM INGLIS MASON, L.R.C.P. Ed., M.R.C.S. Eng., of Sudbury, Suffolk, and the defendant was Mr. CHARLES HENRY CHEVENS, proprietor and conductor of the *South-West Suffolk Echo*. Sudbury is a borough with a population of some 6580 people; and Mr. MASON, succeeding his father (who practised for about fifty years), has himself practised there for about twenty years—a pretty fair record of father and son, involving that element of continuity and permanence which is always a presumption of honest work and character. The *South-West Suffolk Echo*, owned and conducted by Mr. CHEVENS, has had an existence of about eighteen months. Mr. LOCKWOOD and Mr. LAWSON WALTON were retained for the plaintiff, and the Solicitor-General, Sir EDWARD CLARKE, Q.C., M.P., for the defendant. The report of the proceedings occupies nine columns of small type of the *Suffolk and Essex Free Press*, which will be some excuse for a slight delay on our part in commenting on the case. We are, however, grateful to our contemporary for a very admirable report, involving questions and judgments of great interest to the profession and the public. There were three libels complained of by Mr. MASON; but two completely broke down, and we shall describe briefly only the chief one, which was after this manner. On Jan. 6th, 1889, a Sunday morning, a woman named SUSANNAH SHARMAN came to Mr. MASON'S surgery and asked him to visit her child. He was parish surgeon for Sudbury, as well as a private practitioner with a large club connexion, as we shall presently see. He asked her if she had a parish order. She replied, "No." He then said, "You must procure me a parish order or pay me the usual fee of 5*s*." The relieving officer lived two miles off. On the woman raising this objection, he explained that the relieving officer would be at the neighbouring church at half-past ten, and that, if he wished it, he would attend the case. He explained to the Court the alternative method by which the woman was to pay 5*s*. In his father's time a great Sick Fund was formed to meet the case of those who did not wish to be attended as paupers. To adults in health the charge was 1*s*. a quarter, to children 6*d*. a quarter. This fund has in the town and surrounding district a membership of about 10,000, but the remuneration is estimated at £250. The woman left and did not return till the following day, only to announce the death of the child and ask for a certificate, which Mr. MASON, of course, refused, referring the parent to the superintendent of police, with a view to an inquest, at which Mr. MASON gave evidence, and the jury returned a verdict of "Death from natural causes." On Jan. 12th, the *South-West Suffolk Echo* came down heavily on Mr. MASON, and declared "that such heartless conduct as his could hardly be capped," &c., and expressing surprise that the jury and coroner did not pass a vote of censure on the doctor for "such parsimonious, such heartless conduct." This is very fine writing for a young journalist living at a distance from Sudbury, at the expense of a man who had a local habitation and a name there such as we have described, and whom the journalist did not know. On the 19th the *South-West Suffolk Echo* had another libellous article and several little echoes in this style: "Was there ever a more flagrant instance of tutored barbarity before recorded?" &c. We cannot unfortunately give all the particulars of this case, in which many questions of much interest were raised as to the necessity for an order before a Poor-law medical officer was compelled to attend. The woman denied that Mr. MASON had told her that she could see the relieving officer at the church on the morning in question. But Mr. MASON was confirmed in this by his assistant. He further gave his reasons for doubting the fitness of the woman for parish relief—viz., that she was a weaver, and living with a man both at work and in receipt of a pension. The relieving officer, in his evidence, said that he would not have assumed the responsibility of giving an order to people in the position of the applicants, who said they had not a penny, but who were shown to have received, with the pension, within a short time of the period of application, £3 10*s*. The judge distinctly laid down that a doctor could not be burdened with the duty of deciding who was a pauper, saying that the relieving officer was much more fitted to do so. He also expressed himself strongly in favour of the sick fund, and argued that the large membership showed how much it was appreciated. He very strongly laid down that journalists who published newspapers for their own pecuniary benefit had no privileges of censure or criticism which did not belong to the people. The jury gave a verdict for the plaintiff, with damages for £20. We heartily congratulate Mr. MASON on the result of this most proper action of his. Medical men are the easy targets for those who write sublime articles in ignorance of the facts of medical life and labour, and it is very gratifying to see judges and juries agreed in vindicating, as in this case, the conduct and the character of members of the profession.

THE details of the new scheme for reforming the University of London have been forwarded from the Senate to University and King's Colleges, the Royal Colleges of Physicians and Surgeons, the Council of Legal Education, and the Incorporated Law Society, but we cannot see how they can be fully considered and reported on by these bodies before the meeting of Convocation in January next. They have already been referred to the Committee of Delegates of the Royal College of Surgeons and to special committees by some of the other bodies. The constitution of the Senate follows in the main the lines laid down by the Royal Commissioners, and it is only in the definition of constituent colleges that the first serious departure from their recommendations is to be found. The Commissioners say that constituent colleges should be such colleges as University College and King's College, which give academical instruction upon a complete system and an adequate scale in all the faculties, whilst institutions limited to the studies of a single faculty may be "associated" with the University in respect of that faculty, but they should not be called "constituent colleges." As the faculties are to consist of representatives of constituent colleges, and are, in each faculty of Arts, Laws, Science, and Medicine, to elect three members of the Senate, as well as members of a Board of Studies, and to advise on the admission of any

constituent college, it is obvious that great importance will be attached to the precise definition of a constituent college. This is much widened in the proposed new scheme of the Senate of the University, by including institutions in or near London which not only give academical instruction upon a complete system and an adequate scale in all the faculties, but those which give instruction upon an adequate scale in one or more, even though not in all, the faculties. Every metropolitan institution formerly affiliated to the University of London will thus be brought into the rank of constituent colleges, and this altogether alters the character of the Commissioners' suggestions. We question if the constituent colleges will be satisfied with such modifications in the examinations as are proposed in the following clause, which is the only concession to those who ask for an insistence on regular attendance at a course of systematic lectures and systematic practical training: Matriculated students may be admitted, without passing the matriculation examination of the University, from among such students of the constituent colleges as have completed their eighteenth year, and who shall produce evidence satisfactory to the Senate of their diligent attendance during an academical year in a constituent college at lectures on the general subjects of the matriculation examination, or such of these subjects as the Senate may from time to time appoint, and of their proficiency in the general subjects of the said examination, as tested by examination within the said constituent college. The extra-metropolitan institutions are to have no voice in the management, but their students are to be admitted to similar privileges as those from constituent colleges. The professional clauses are the following:—"To accept, in lieu of the passing of the preliminary scientific examination in medicine, certificates that the students have passed at the Royal Colleges examinations which are to the satisfaction of the Senate a sufficient test of competent knowledge in the subjects of the said preliminary scientific examination.—In the event of the establishment of a second examination for the degree of M.D. not requiring the attainment of so high a standard as the present examination, to confer on all existing M.D.'s of the University, and all who may hereafter pass the examination which will require the attainment of the higher standard, the right to describe themselves as M.D. with honours (M.D. Lond. honours), and on all existing M.B.'s the degree of M.D." Honorary degrees may be conferred, and professorships and lectureships, whether attached or not to any particular college, may be established. We doubt whether these concessions will be sufficient for the teaching colleges, and the last paragraph, although suggested by the Royal Commissioners, will lead to considerable friction and heart-burning among existing graduates. As it is almost impossible for the Senate to declare themselves satisfied with the present examination in Physics and Chemistry at the Conjoint Examining Board, considering their own excessively high standard at present in these subjects, that clause must be looked on as practically inoperative.

WE regret to hear that Professor Bergmann is suffering from pneumonia, contracted apparently in going to Halle to attend Professor Volkmann's funeral.

Annotations.

"Ne quid nimis."

HOSPITAL MONOPOLIES FOR CERTAIN QUALIFICATIONS.

IT seems not a little inconsistent that, while we are blaming France, Switzerland, and other countries for being ungenerous in the recognition of British diplomas, we have monopolies for certain hospital appointments in our own country in favour of certain colleges. It is felt to be a hardship by Bachelors of Medicine of the Universities of Scotland and Ireland, Licentiates of the Royal College of Physicians of Edinburgh, as well as by Fellows, Members, or Licentiates of the King and Queen's College of Physicians in Ireland, that they are not eligible to the office of physician in many English hospitals, and, similarly, that Licentiates in Surgery of the Scottish and Irish Colleges of Surgeons are, in many hospitals, not eligible to the office of surgeon, as Fellows or Members of the Royal College of Surgeons of England are. This question has often been discussed of late, and within the last few weeks has been reopened at Derby with reference to the rules relating to the qualification of physicians and surgeons in the Derbyshire General Infirmary. The present rules have the exclusive effect above indicated, and at the annual meeting of the governors it was sought, on the motion of Dr. Murray Lindsay, to revise the rules and give them a more liberal form. But the attempt failed completely, under the influence of certainly some very loose statements, such as the following by Mr. E. C. Green, ophthalmic surgeon and junior member of the staff, who explained to his audience that students could go to Edinburgh and get a University degree very easily. This is certainly inaccurate and undesirable language in one holding the three ordinary English qualifications. We do not mean to endorse all the reasoning by which Dr. Murray Lindsay argued for a broader recognition of diplomas—as, e.g., where he maintained that the larger proportion of rejections at the examination for the licences of Edinburgh College showed a severer examination than in the London College. The proportion of rejections is no criterion apart from other proofs of the standard of examinations, and it has long been known that at some of the lowest examinations there was the highest proportion of rejections. The fact is that we want accurate and impartial information on the equivalence of corresponding examinations. We are of opinion that all mere territorial distinctions of medical qualification for high office in public institutions are unseemly and inconsistent alike with the Medical Act and the spirit of the age. Still it is not right to forget that until at least a very recent period similar qualifications in different divisions of the kingdom did mean very different degrees of education. For example, the Fellowship of certain Scottish colleges, if not Irish ones, could practically be obtained without examination. This we believe is no longer the case. But we are still without any impartial and judicial report as to the comparative strictness of the respective examinations for the Fellowship—say, of the English, Scottish, and Irish Colleges. Until this is forthcoming it is vain to expect a complete admission of the equivalence of what ought to be corresponding qualifications. All that the Inspectors of the General Medical Council have to ascertain, even as regards the highest examinations, is that they are a test of bare competence to practise. Much more than this is wanted for the high posts of the profession, and the Scotch and Irish Colleges will best contribute to a liberal recognition of their Fellowships and qualifications by demonstrating the equivalence of the examinations by

which they are gained to those passed by the candidates for corresponding qualifications in England. If this were done, the mere territorial distinctions of qualification could not last a day.

A NEW SOURCE OF HYOSCYAMINE.

A RHIZOME which has recently been offered in the drug market as a substitute for belladonna root under the name of "belladonna scopolia" has been very fully investigated in the research laboratory of the Pharmaceutical Society. At the last meeting of the Pharmaceutical Society Professor Dunstan communicated the results of a chemical examination of the drug, which shows that it contains ·5 per cent. of hyoscyamine. With the possible exception of a mere trace of hyoscine, no other mydriatic alkaloid was found in the plant, which would seem by this circumstance to be distinguished from other plants belonging to the same natural order—viz., belladonna, hyoscyamus, stramonium, &c.—from which different proportions of atropine or hyoscine are present in addition to hyoscyamine. Professor Dunstan points out, however, that this difference may possibly be due to the methods employed by previous workers in extracting the alkaloids from these plants, which may have led to the decomposition of the hyoscyamine by heat or by fixed alkalies. Among the other compounds isolated from the new drug were a crystalline sugar resembling dextrose, a fluorescent substance, and cholesterin. The latter substance is present to the extent of ·1 per cent., and it was subsequently found to be contained in the root of Atropa belladonna. The resemblance between the two plants is borne out by a comparison of the structures of the roots which has been made by Mr. Greenish. The rhizome was referred to Mr. Holmes for identification, and he states that it is derived from Scopola carniolica, a plant which grows, apparently abundantly, in Austro-Hungary and in other parts of Europe. The pharmacy of the drug is fully described in a paper by Mr. Ransom. The therapeutic action of preparations made from the rhizome was the subject of a communication from Sir Dyce Duckworth, who shows that the drug may be used with success as a substitute for belladonna, apparently with the advantage that it does not give rise to the dryness of the throat which is produced by belladonna. Further trials of its therapeutic action are being made. Since Scopola carniolica contains more alkaloid than belladonna, is easily obtainable, and is at present cheaper than that drug, and, moreover, furnishes a valuable source of hyoscyamine, it is probable that more will be heard of its employment in medicine. The papers to which we have referred are printed in the *Pharmaceutical Journal* of Dec. 14th.

THE HIGH DEATH-RATE IN NEWCASTLE-UPON-TYNE.

AN influential deputation, representing the clergy, ministers, and ratepayers of Newcastle-upon-Tyne, was received by the Mayor and City Council at a meeting held on the afternoon of the 4th inst., when a memorial was presented requesting the serious consideration of the Council for the abnormally high death-rate that has recently prevailed in the city. In the memorial especial attention was directed to the fact that the causes of the high death-rate in Newcastle were fully set out in the special report of the medical officer of health presented in 1883, but that since that date comparatively little has been done to remove the most serious of the sanitary defects to which the high death-rate was therein referred. The memorial avers that the drainage and sewerage of the town are still undoubtedly defective; that slaughterhouses, cowhouses, and cattle fairs exist in close proximity to dwelling-houses; that the city still contains 20,000 middens; that many of the dwellings are quite unfit for habitation, being indeed mere "fever dens"; that the water-supply to tenement property is very insufficient; and that serious overcrowding is permitted in dwellings. Such is the indictment against the sanitary condition of the city contained in the memorial signed by upwards of fifty of the clergy and ministers of the city, and presented to the Mayor by the recent deputation. Whatever may be the degree of justification for so sweeping a condemnation of the health condition of the city, the presentation of such a memorial should materially strengthen the hands of the sanitary authority in carrying out the radical reforms which undoubtedly appear to be necessary. The unfailing key to the health condition of all urban aggregations is the improvement of the house accommodation of the poorer of the working classes, and, after due allowance for possible exaggeration, there can be no question that this is a subject demanding the earnest attention of the sanitary authority of Newcastle-upon-Tyne. Much has been said, with regard to the recent high death-rate of this city, respecting a possible under-estimate of its population, upon which the death-rate is calculated. Judged by the birth-rate, such an under-estimate, especially during the years 1886–7, appeared probable; but it must be borne in mind that the annual number of registered births in the city during the four years 1886–9 has been practically stationary, while the population is estimated to have increased at the rate of 2000 per annum. It follows, therefore, that if the population was under-estimated a few years ago, such under-estimate has now decreased, if it has not disappeared. Moreover, any idea that the high death-rate in the present year is to any considerable extent explained by such under-estimate of the population may at once be dismissed as fallacious. Putting the population question entirely aside, the undue proportion of the deaths due to the principal zymotic diseases and the terribly high rate of infant mortality afford conclusive evidence of insanitary condition, justifying the action of the memorialists at the recent deputation to the Corporation of Newcastle-upon-Tyne as the sanitary authority of the city. The memorial was referred to the Sanitary Committee of the Council for consideration and report, the result of which will be anxiously awaited by all who have the welfare of the city at heart. We are glad to observe that the action of the deputation is already bearing fruit, as at the last meeting of the vestry an animated debate took place upon a resolution in favour of a rigid inquiry being made into the sanitary condition of the city, the discussion being eventually adjourned for a fortnight.

A SIXPENNY INFIRMARY!

THE medical profession in Bradford is considerably agitated at present by the extraordinary proposal to convert the infirmary of that town into a great sixpenny dispensary, without the essential condition of such institutions, that the medical attendants should be paid for their services. The proposal is all the more surprising and painful in that it has emanated from one member of the medical staff. In brief, his proposition is that every patient in the out-patient department shall pay sixpence per visit for advice and medicine. Even assuming that the object in view is to diminish the evil of an excessive attendance in that department, and that the means proposed would be successful, it must appear evident to everyone that the end does not justify the means. The co-operative principle, whereby a number of persons, under proper regulations, by small individual contributions make up a sufficiency to pay for medical attendance for the contributors, is one which must meet with general approval. But that the skilled professional services of the infirmary staff at

Bradford should be gratuitously dispensed for sixpence a visit (as the staff would receive no pay), including medicine, bears no resemblance to co-operation. We understand that the members of the profession in Bradford have already held a preliminary meeting, at which an opinion strongly adverse to the proposal was unanimously expressed, and it has been arranged to summon a general meeting of the whole profession in the town and neighbourhood to discuss and, it is to be hoped, give the *coup de grâce* to any such proposal. The fact that the board of the infirmary is exceeding its income is no justification for such a course, especially when there have long been loud complaints that the excessive expenditure is in directions which are not charitable, which unfairly tax the honorary staff, and are objected to by the general practitioner as offering unfair inducements to persons who can pay for private medical attendants to become recipients of gratuitous medical relief at the infirmary.

THE TREATMENT OF INFLUENZA.

M. H. HUCHARD, writing in the *Revue Gén. de Clin. et de Thérap.* (Dec. 12th), speaks of nervous prostration as being a chief clinical characteristic of severe cases of influenza, requiring for its treatment quinine, alcohol, and, in bad cases, even injections of caffein and ether. Quinine, he says, is indicated on account of the markedly remittent type of fever, and to moderate the evening exacerbation it suffices to give a full dose (5 to 15 grains) of the sulphate or hydrobromate in the morning. Smaller doses more frequently taken are useful for their tonic rather than antipyretic effect. In the neuralgic or rheumatoid form of influenza antipyrin (15 grains) combined with bicarbonate of soda (7½ grains) is recommended by M. Huchard, to be taken every four hours, or instead of antipyrin, phenacetin or salol (7 grains). Influenza often assumes a broncho-pulmonary form, and in certain cases is very grave. In the epidemic of "la grippe" in 1886, recorded by M. Menetrier, the pneumonic forms were very asthenic. In such cases, tonics, milk, alcohol, and, in fact, general restorative measures are indicated rather than local applications to the chest. If the dyspnœa became severe, and the condition termed by Graves "pulmonary paralysis" ensues, then strychnia is of value; or in case of impending asphyxia or renal asthma, venesection; but when the asthenia itself threatens life, there should be no hesitation at resorting to hypodermic injections of ether, and especially of caffein. For the gastro-intestinal form, mild aperients, ipecacuanha, and the use of salicylates of bismuth or of magnesia, naphthol, or iodoform to promote intestinal antisepsis, are indicated.

BOXING THE EARS AND ITS RESULTS.

WE would fain hope that, in deference to repeated warnings from various quarters, the injurious practice of boxing the ears, once common in schools, is fast and surely becoming obsolete. It is too much to say that this desirable end has yet been realised. Certainly the recent observations of Mr. W. H. R. Stewart do not give colour to any such view. In a pamphlet on "Boxing the Ears and its Results," lately published, and illustrated by appropriate cases, he briefly summarises his own experience in the matter. He reminds us that, notwithstanding the toughness of the aural drumhead, its tense expanse will rupture only too readily under the sudden impact of air driven inward along the meatus, as it is in the act of cuffing; and he shows that in one instance at least this injury resulted from a very slight though sudden blow. Given early and skilled attention the wound may heal very kindly, but if the beginning of mischief be overlooked, as it often has been, further signs of inflammation soon follow, and a deaf and suppurating tympanum is the usual result. There is practical wisdom in the statement that this consequence most readily follows in the case of the poorly developed and underfed children who abound in every Board school. In them an earache would probably receive no very strict attention, and disease might for a time work havoc unimpeded. Where chronic suppuration exists already, and it is only too common, a random knock on the ear may result, as in a case related in THE LANCET in a fresh otitis, with fatal brain complications. Schoolmasters and others, who may at times be tempted to apply the correcting hand somewhat too carelessly, might read the few pages of this little work with equal interest and advantage. The close connexion between ear and brain should never be forgotten, and the reflection that injury to the former organ most easily terminates in total deafness, and in suppuration which may any day take a fatal course, should assist in the preservation of a sometimes difficult patience.

THE LATE SURGEON-MAJOR SHIRLEY DEAKIN.

WE regret to learn of the death of Surgeon-Major Shirley Deakin of the Bengal Army, which took place at Jhelum from enteric fever. He was well-known as an energetic and enlightened surgeon, and had been editor of the *Indian Medical Journal* since its foundation. A correspondent writes:—"I heard with much pain last week of the death from typhoid of my old college friend Shirley Deakin at the early age of forty years. I have a vivid recollection of him as a student of University College between the years 1867 and 1871, for he was then marked out from his fellows for liberality in thinking, enthusiasm for humanity, and frank outspokenness. Shirley Deakin's was a fine character, chivalrous almost to a fault, and keen to redress injustice. Many of his fellow students may recall the prominent part he took in the meetings of the College Medical Society, and the interest he showed in social questions. He was a warm advocate of legislation for contagious diseases—an advocacy based as much on the cause of the unfortunate victims of vice as on grounds of political economy,—and he read a paper on the subject before the Society, in which he proved how thoroughly he had mastered all its bearings. On leaving college he held for a year or two the office of house surgeon to the Male Lock Hospital, and about 1875 entered the Indian Medical Service. Since then he has paid a few visits to his mother country, but he threw himself into the duties of his office with the same energy that characterised him in old days. His old friends have noted with pleasure how in the midst of officialism Shirley Deakin has continued to champion the cause of the oppressed and to denounce injustice and wrong. Nor did he neglect the pursuit of scientific medicine, often contributing papers to the Indian and home medical journals. Indeed, I think that he was the chief promoter of a journal which he edited. I must, however, leave to others who are better acquainted with his Indian career to speak of his work there. I am sure that none who knew him can think without sorrow of the premature close of a useful life."

ENGLISH PRACTITIONERS IN FRANCE.

THE *Nice Gazette* makes a very lame attempt to justify the illiberal action of the French Government in refusing to grant permission to English medical men to practise in places resorted to by the English. It states that, a French examination having to be passed, English residents may feel sure of the competence of those who henceforth seek to practise there. This is a poor compliment to English examining bodies, and not an argument likely to weigh with English people, who will certainly be apt to try home resorts more freely.

CAUSE OF DEATH FROM ELECTRIC DISCHARGE.

THE deaths which have recently occurred in New York from electric discharge, and the post-mortem examinations made on those fatally stricken, have led to the conclusion that in the course of the electric current through the body the blood is the chief conductor. This is precisely what has been known in this country since the year 1869, when Dr. B. W. Richardson conducted his series of experiments on death by electric shock with the large electric coil set up by Mr. Apps at the Royal Polytechnic Institution. In those researches the experimenter, by passing electric currents of high tension through sets of glass tubes charged with different conducting animal substances, made the fact demonstrable that of all the animal structures blood was, preferentially, by far the best conductor. In the same researches it was also demonstrated (*a*) that discharges which by their intensity kill most rapidly leave least mark of distortion or of external injury; (*b*) that on complete prostration from the shock the heart may continue in action for several minutes after what appears to be actual death; (*c*) that the injuries inflicted on a living body by the shock are superficial burns and ecchymosed spots on the outer surface of the body, darkening of the colour of the blood within the body, congestion of the heart and venous system generally, and injection, in some instances, of the mucous surface of the alimentary canal. The conclusion arrived at from these observations in regard to the cause of death from the electric shock was that the cause is a sudden expansion of the gases of the blood, with liberation of free gases from instant decomposition of the blood and the other fluids. Under the tension produced from the internal gaseous pressure, distension occurred in the venous canals, and the escape of bubbles of gas from the cavity of the cranium, on laying it open, was a frequent phenomenon. In one instance the right side of the heart of a sheep was ruptured from the cause named on the administration of the shock. But it was also observed in other instances that the whole of the discharge seemed to be conducted solely by the external surface of the body, under which condition there was extreme shock and prostration without death. It was this last observation that led Dr. Richardson to discard the idea of utilising the electric shock for the painless extinction of the lives of the inferior animals, and to substitute the lethal chamber for that humane purpose.

ROARING IN HORSES.

WE have received a copy of the "Report of a Committee appointed by the Midland Counties Veterinary Medical Association to examine and report on three horses operated on for roaring by the intra-laryngeal operation on May 24th by Professor Axe." The committee, consisting of one Fellow and four Members of the Royal College of Veterinary Surgeons, reports that in none of the cases did any benefit follow the operation; on the contrary, in its opinion, "the animals exhibit more distress under exertion than do roarers of about the same degree under ordinary circumstances." There is an important omission in the report: the date of operation is stated to have been May 24th, but no indication is given of the date on which the committee examined the horses. Time, however, is an important element in judging the effect of the operation. But the most remarkable thing connected with the report is the reason assigned for its publication. "The public have been led to form such sanguine anticipations of the success of these experiments that it is right they should know they are not always successful or unattended with risk." We are not aware that it has ever been stated that the operation is likely to be always successful. On the contrary, Dr. Fleming, in his last report on the Army Veterinary Department, states that of fifty-nine horses operated on, thirty-eight were cured, nine improved, and twelve not improved. We do not know of any other statistics of the operation having been published. These, so far as they go, certainly do not justify the expectation of the public as enunciated by the Midlands Association, but they show an amount of success which cannot be gainsaid by the failure of three cases. What is required for the elucidation of the subject is a report of all the cases—not merely the successful or the unsuccessful—when a sufficient period has elapsed after the operation to permit of an accurate opinion being formed of its results. We trust that in his next annual report Dr. Fleming will be able to give the statistics of a sufficient number to justify at least an approximate estimate of its value being formed, as in his last report he noticed a considerable number of cases in which more time was required before arriving at a definite conclusion as to the benefit derived. We cannot compliment the Association on the course it has adopted in publishing a report framed on so very unsatisfactory a basis as the results of only three cases.

A MORSEL OF CHRISTMAS LITERATURE.

WITHIN a few days most of our readers may hope to enjoy a time at least of partial relaxation from the daily round and task. Already the season's literary flood flows towards them with its varied contributions. Among such we may here mention one which those interested in folk-lore will read with pleasure. This is a short paper by Dr. W. Northrup in *Scribner's Magazine* for the current month on "The Pardon of Ste. Anne d'Auray." This article, as its name indicates, is occupied with a description of the chief religious festival of Brittany. Other sketches illustrate the customs observed on similar occasions in Finisterre and elsewhere. One and all they exhibit the native Breton in a light at once critical and appreciative. He is, according to the author, laborious, thrifty, and steady, but withal devout overmuch, and not very intelligently so. Of Druid-revering ancestry, he remains, with a change of instruction and of teachers, a born and loyal pagan, sanctioning a reference to rocking stones for the cure of sterility, and to holy water and Ste. Anne for other healing virtues. Notwithstanding the rites of shrines and holy seasons, however, he retains a Celtic shrewdness in matters of worldly profit, and naturally enough contrives to combine with his "duties" quite enough of the festival spirit and practice to make his high days yield their due of profit and enjoyment. A fluent style, careful description lightened by frequent incidents of travel, and, as usual in this magazine, an abundance of excellent illustrations combine to render Dr. Northrup's contribution to Christmas literature as interesting as it is instructive.

VOLVULUS AND ITS TREATMENT.

THE following conclusions are arrived at by Dr. N. Senn at the close of an interesting paper upon the Surgical Treatment of Volvulus (*Medical News*, Nov. 30), in the course of which he deprecates the resort to any such attempts at taxis as those advised by Mr. Hutchinson, and recently published in his "Archives of Surgery." Dr. Senn gives a successful case of volvulus of the sigmoid treated by laparotomy: "1. The predisposing causes of volvulus are either congenital or acquired, and consist in elongation of certain segments of the intestine, abnormal length of mesentery, and adhesions. 2. Irregular distribution of intestinal contents and violent peristalsis are the most important exciting causes. 3. Volvulus is most frequently met at the sigmoid flexure and the lower portion of the ileum. 4. Secondary

volvulus on the proximal side of other forms of intestinal obstruction is not a rare occurrence; it is also frequently developed during an attack of peritonitis. 5. As a rule, the symptoms are more acute and intense if the volvulus is located above the ileo-cæcal region. 6. Vomiting in cases of volvulus of the sigmoid flexure is not a constant symptom. 7. The most important physical sign of volvulus is a circumscribed area of tympanites which corresponds to the location of the volvulus, but this sign is only of value before general tympanites has set in, and therefore enables the surgeon in many cases to make an early and positive diagnosis. 8. All cases of volvulus should be treated by laparotomy if reposition cannot be accomplished by rectal insufflation of hydrogen gas. 9. Reposition should not be attempted without evisceration. 10. Evacuation of intestinal contents by a free incision should be practised in every case where general distension of the intestines is present. 11. Enterectomy becomes necessary if any considerable portion of the intestinal wall has become gangrenous. 12. Irreducible volvulus should be treated by establishing intestinal anastomosis with permanent exclusion of the seat of obstruction from the active fæcal circulation. 13. Recurrence of volvulus can and should be guarded against by shortening the mesentery by folding it upon itself parallel to the long axis of the bowel and suturing the apex of the fold to the root of the mesentery."

A "STRIKE" AMONG MEDICAL MEN.

MEDICAL MEN are generally so "easy to be entreated," and so ready to yield to any call of urgency, that the public has come to think itself entitled to their services as if they were under some compulsion to be at everybody's beck and call. But in these days of strikes this notion may have to be reconsidered. At Rodez, in France, the medical men, backed by the Medical Association, refused to make a post-mortem examination of the body of a young woman found in a field, on the ground that the fee allowed was too small. For more than a week the body remained unexamined, and some suspected prisoners had to be released in the absence of confirmatory medical evidence. Some of the doctors have been fined for their behaviour, but are appealing to the Cour de Cassation. The question has been discussed in the French Senate, who find they have no more power over doctors than over pitmen, if they use no violence and break no law. No body of men have such good reason for combining as medical men, and none could inflict more effective vengeance on those who underrate their services. But it ought to be possible to bring the public to a better appreciation of our deserts without the arbitrament of a "strike."

MICRO-ORGANISMS IN WATER.

THERE is a difference of opinion amongst many chemists as to whether the presence of a large quantity of bacteria or a considerable amount of organic matter in drinking water justifies as such its condemnation. Waters containing few bacteria and little organic matter have been known to produce distinctly injurious results, while some waters containing much of both appear to be comparatively harmless in their action. Of course, very much depends upon the source of the water and the nature of its surroundings. The fact, however, that organisms believed to be agents in bringing about certain diseases exist in water for a long time, during which their activity is preserved, makes their absence distinctly desirable. Certain operations in nature would seem to indicate this. Investigations have shown that more bacteria are usually present in rivers than in lakes, in spite of the fact that lakes themselves in many cases are more or less polluted by rivers passing through populous towns. In a very interesting paper in the *Zeitschrift für Hygiene*, 1889, 86, B. Krüger considers that this rapid decrease in the number of organisms may very possibly be due in part to the action of direct sunlight, but in the main to the tendency of water in a comparatively undisturbed state to deposit and precipitate. He therefore carried out a number of experiments with a view to determine how far the removal of organisms was brought about by the mere mechanical deposition of inert matter and also by precipitation as a result of chemical action. The mechanical precipitants employed, all in a state of fine powder and sterilised, were alumina, brickdust, clay, chalk, sand, coke, and charcoal. Water obtained from an ordinary service pipe was impregnated with a liquid containing bacillus growth of a species incident to tap water. This was divided into two portions—one for precipitation with the inert substance and the other untreated for the sake of comparison. Experiments were similarly carried out in which precipitation was obtained as the result of chemical action such as is brought about by the addition to the water containing naturally lime, magnesia, &c., substances like wood ash, sulphate of alumina, and slaked lime. The general conclusion come to by the author from the results obtained is that undoubtedly large numbers of bacteria are carried down by inert substances merely sinking in water, but that the action is very considerably increased when, in addition to mechanical deposition, a chemical precipitation also takes place. The corollary is evident—inert substances do mechanically assist in the precipitation of micro-organisms, but preference should be given to chemical treatment.

SECRET JUDICIAL INQUIRIES IN RELATION TO PUBLIC MORALS.

IN a libel action which was recently brought to trial, Mr. Justice Denman, having before him the pleadings in the case and gathering therefrom that the evidence which would be tendered was such as it was not desirable in the public interest to receive in open court, decided to exclude the general public during the hearing. It happened that among the number so excluded was a member of the bar, who has challenged the right of the Judge to take the step, and has submitted the question for the opinion of the Attorney-General. The opinion expressed by that authority is that the Judge exceeded his powers, and that there is no precedent for the exclusion of the public at the hearing of libel actions. This of course is only a dictum, but it suffices to detract from the authority of the precedent which Mr. Justice Denman created when he assumed the other day to clear his court upon the grounds already indicated. It may well be therefore that in future judges will hesitate to follow that example, and it should perhaps be considered whether it is not for the public advantage that a judge of the Supreme Court should be invested with the power, conferred if necessary by legislation to that effect, to hear in private any cause which seems to him calculated to bring forward evidence not fit for publication. The question is undoubtedly a very involved and difficult one. The publicity of judicial proceedings has very rightly been regarded time out of mind as one of the best safeguards which the constitution provides against the perpetration of injustice by judicial means. The free right of access to the courts is therefore a right which should be jealously guarded. But this right is not seriously imperilled by excluding a certain class of cases from its operation. Indeed, that is done already, and the only question now open to discussion is the question whether the existing custom should be extended at all. In cases where it appears that the evidence will bring out the details of practices which are better not described,

and where it must be fraught with evil suggestions, we think some discretion might usefully be confided to the presiding judge, especially when the issues before the tribunal are not those of a criminal proceeding where a prisoner's liberty is at stake, but only those of a civil trial where the question to be determined is simply the liability of one party to perform a duty or forfeit a penalty for the benefit of the other.

PSOROSPERMIA (COCCIDIA) IN MAN.

As will be seen from the report on another page, a large part of the time of the last meeting of the Pathological Society was occupied by the description of certain parasites which, although remarkably prevalent in some of the lower animals, notably the rabbit, have not been much recognised in the human subject. Indeed, the specimen shown by Mr. Bland Sutton suggested the notion that possibly its presence has been overlooked in many cases. For his specimen was obtained from the Middlesex Hospital Museum, where it had been mounted as an example of mucous cysts of the ureter. Mr. Sutton, however, correctly surmised the parasitic nature of this curious specimen, for on recently submitting the "cysts" to microscopical examination, he found that they were really occasioned by the presence of psorospermia or coccidia, of which Leuckart has written so able an account. Of equal interest were the communications by Mr. Silcock and Dr. Delépine, the former dealing with a case in the human subject, where these parasites were found in the liver and spleen, and to the presence of which it was supposed that the obscure febrile symptoms were due; whilst the latter gave a most careful account of the disease in the rabbit. Dr. Payne's remarks deserve consideration, for, referring especially to the peculiar bodies characteristic of molluscum contagiosum, and lately alleged to be psorospermial in nature, he pointed out the difficulty of distinguishing them from colloidal masses derived from cell degeneration. Moreover, Mr. Sutton admitted that it was possible to mistake the ova of some entozoal worms for psorospermia. Nevertheless the attention thus given to the subject is sure to bear fruit, and without admitting it to be conclusively proved that these minute animal parasites are responsible for eczema of the nipple or molluscum contagiosum, the question of their gaining entrance into the human body, and being there a source of danger to health and even of life, is too important to be lost sight of. The "gregarinidæ" are perhaps the most widely diffused of all animal parasites, since they infest insects and other invertebrates, and their occurrence in man has hardly hitherto been seriously regarded. But they at once assume a most important position if they are to become responsible for tissue changes of a grave kind. The subject, however, from this point of view, is still in its infancy, and no good result will accrue from premature generalisation on the few data at present forthcoming.

PAUPER INEBRIATES AND THEIR COMPULSORY TREATMENT.

DR. W. M. DUNLOP, medical officer of the St. Pancras Workhouse, in a letter addressed to the Workhouse Visiting Committee, has expressed himself strongly in favour of the suggestion of Dr. Norman Kerr—that the guardians of the poor should be invested with a discretionary power of paying for the detention of pauper inebriates, either in the workhouse or in some special institution for the treatment of inebriety. He divides inebriate inmates into two classes:—1. Those placed in the insane wards suffering from acute alcoholism, and those suffering from dementia from chronic alcoholism; these cases comprise over 25 per cent. of the total admissions into the insane ward. They are at present dismissed as soon as the symptoms disappear. 2. The ordinary inmate of the workhouse, who takes his discharge habitually or occasionally, and who as frequently returns intoxicated. Such powers of detention could only be conferred by special legislation. Dr. Dunlop does not make clear whether the pauper is in the first instance to be a consenting party to this detention, as in the case of other habitual drunkards, or whether he has to be favoured by deprivation of liberty without being consulted. His frequent dependence on the rates, and the fact that otherwise he is likely to be a constant charge, make the gift of these compulsory powers not unreasonable from the ratepayer's point of view. From the pauper's point of view they are his only chance. It lets in light, both on pauperism and insanity, to learn from Dr. Dunlop that 25 per cent. of the insane cases in workhouses are of alcoholic causation.

CLINICAL TEACHING ON FEVERS IN GLASGOW.

IT will be lamentable if the establishment of St. Mungo's School in any degree curtails the range of clinical teaching, especially in the matter of fevers. The letters in the daily papers on questions in dispute between rival schools are not seemly or satisfactory. We had much pleasure some time since in noticing Dr. Allan's efforts to give clinical instruction in fevers, and in holding his example up for imitation by other schools and teachers. We have recognised the attempt to utilise to the full the splendid clinical field of the Royal Infirmary. So that we claim to be in full sympathy with all teachers in Glasgow, whether extra- or intra-mural, who wish to make medical education real. Dr. Gairdner, in a letter to the *Glasgow Herald*, takes, and apparently quite justly, credit for having been among the first to induce Dr. Allan to commence his teachings in fever, which have been so successful, and he is concerned to think that between the fires of the two schools Dr. Allan threatens to withdraw from both. Dr. Gairdner disclaims all university jealousy, and seems only anxious that, in any new teaching arrangements into which Dr. Allan may enter, he may not compromise the interests of the university students. Surely the Fever Hospital of Glasgow and its lessons should be neutral ground on which both university and extra-mural schools might agree to meet. We congratulate Dr. Allan on being so appreciated by both sides, and urge upon him to continue the teaching which has been so successful. We doubt if in any other school in the country a clinical teacher of fevers could boast of forty pupils.

CABS AND INFECTION.

IN the absence of anything like a public service of ambulance carriages it frequently happens that a cab is found to be the most convenient means of conveying patients suffering from infectious disease from their homes to the nearest fever hospital. The disinfection of these vehicles is of course a matter of much importance, and the question how and where this may best be carried out has lately given rise to some discussion. A contemporary suggests that in the case of hospitals under the control of the Metropolitan Asylums Board this body should be responsible for the disinfection and not the Local Board of Works, whose offices may be placed at some distance. In point of convenience there is doubtless an appreciable difference between the two methods of procedure. The danger of allowing a cab to traverse the public streets after depositing its infectious occupant is a further consideration. While we cannot regard this risk as of great practical importance in itself, inasmuch as it is much qualified by that best of purifiers, fresh air, there are conceivable circumstances in which it might excuse a natural feeling of alarm. Such,

for example, are afforded by the delay consequent on blockage of traffic, by the importunity of foot-weary or hurried wayfarers, or the regardless cupidity of the driver should a tempting fare prove too much for his scruples as to infection. It is probable, however, that in the great majority of cases such causes of alarm have little foundation, and the proposed interchange of authority would, after all, exert no very extensive alteration in present usage. In these circumstances we are disposed to wait for proof of the mischievous consequences attributed to the present system before advocating a change, which might not, after all, be wholly free from objection. Of much more serious import is it that disinfection, by whatever authority it is carried out, should be of the most thorough character.

VENESECTION IN CHLOROSIS.

THE practice of venesection in chlorosis would not at first sight appear likely to yield good results, but that it is capable of acting most beneficially is vouched for by Dr. Wilhelmi, who has for some time past employed it with great success in typical cases of chlorosis (not of lead poisoning, as was by an error printed in last week's issue). About three or four ounces of blood only should be taken, the patient being in bed and being covered up with blankets and plied with hot drinks until sweating comes on. It would appear that the severer the case the more benefit may be expected from the bleeding, but that this treatment is of little use in mere hysterical or symptomatic anæmia.

THE SELBY OAK CASE.

WE need not comment at any length on this case—unfortunately another illustration of the fact that a medical man is daily at the mercy of unprincipled or insane women. We congratulate Mr. Cuthbert on his complete vindication. The case is also another illustration of the use of the Medical Defence Union. Nevertheless, the frequency of these cases only serves to show the necessity for medical men multiplying the securities by which their conduct when exposed may be vindicated.

CAROTID ANEURYSM.

THE operation of ligature of the common carotid below the omo-hyoid for aneurysm of that vessel was performed by Mr. James Hardie, of Manchester, on the 4th inst., in the case of a gentleman aged forty-five. Up to the present time he has progressed favourably in every respect. We hope to give a full report of the case in due course.

BETHNAL-GREEN POOR'S LAND FOR SALE.

THE question respecting the disposal of Bethnal-green Poor's Land, as our readers may have learned elsewhere, is, after all, one of money. At present the land is let to the Bethnal House Asylum, and yields an annual income of £120. If it were thrown open to the public this rental would of course be lost. If, as was lately proposed, half the ground were utilised for building various municipal offices, a considerable sum by way of compensation would be paid out of the local rates to the Charity Commissioners on behalf of the poor. Naturally the Commissioners, supported as they are by a bare majority of the trustees, feel disposed to close with an offer so advantageous, notwithstanding that it is directly opposed to the terms of the bequest under which the land is now held. The readiest way out of the difficulty is by having recourse to public subscription. It has therefore been proposed to raise in this way £5000, no great price for six acres and a half of ground, but a sum which will at the same time satisfy the claims of the local poor, and will save another open space—not one too many—in one of the most populous metropolitan districts. With this object an appeal, strongly supported by local and external influence, has just been issued, and payments will be gladly received by Messrs. Barclay, Bevan, Ransom, and Co. In adding our testimony to the importance of this movement, we feel that we are simply discharging a double duty to the destitute poor and the overcrowded population of East London.

MEDICAL ITEMS FROM FIJI.

MR. B. G. CORNEY, chief medical officer of Fiji, has been appointed an official member of the Legislative Council of the colony. The health of the Europeans has been excellent. In Suva, with a population of about 700 Europeans, there have been but six deaths. Of these three were of infants, one was a sailor and non-resident, and of the two deaths which were of *bonâ-fide* adult residents one was from old age. A cottage hospital has been opened in Levaka (Fiji), and is being supported by private subscriptions, the only contributions from public funds being in the shape of the gratuitous services of the district medical officer.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Bramann has been promoted to the rank of Extraordinary Professor of Surgery.

Bologna.—Dr. Pellacani, Extraordinary Professor of Pharmacology in Genoa, has been appointed, after open competition, Professor of Forensic Medicine.

Cadiz.—Señor Löhr has been selected, after competition, for the chair of Hygiene, and Señor Guedea y Calvo for that of Clinical Surgery.

Palermo.—Dr. Marcacci has been appointed Professor Extraordinary of Physiology.

Prague (Bohemian University).—Dr. C. Schwing has been promoted to the rank of Extraordinary Professor of Midwifery and Gynæcology.

St. Petersburg.—Dr. Hoyer, Professor of Embryology and Histology, has been reappointed for a further term of five years, although he has completed thirty years of service. Ninety-five students have passed their final examination this term; of these, thirty-five obtained the note "very good" in more than one-half of the subjects, thus gaining the right to remain at the Academy for further study.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Grigoroff, Ordinator of one of the Moscow Hospitals, and author of works on Syphilis; Dr. R. Hüber, of the Maria Magdalen Hospital, St. Petersburg; Dr. Ernst von Kade, who acted as assistant to Pirogoff during the Crimean War.

DR. GAIRDNER of Glasgow has lately delivered an address to the Midland Medical Society, in Birmingham, on Drunkenness and Dipsomania: Medical and Legal Preventives and Remedies. He strongly supported more stringent measures for the compulsory detention of habitual drunkards, and on the same lines as those for the treatment of the insane. No medical practitioner of experience can fail to see the absurdity of making the detention of habitual drunkards turn on their own consent.

MR. T. H. OPENSHAW has been elected Surgical Registrar at the London Hospital, in the place of Mr. J. Hutchinson, jun.

PROFESSOR LEYDEN has been summoned from Berlin to a consultation with the Czar's physicians.

WE learn that Mr. William Anderson, whose nomination as one of the three candidates for selection for the Challis Chair of Anatomy in the University of Sydney we reported in a previous issue, has withdrawn his application for the post.

THE Council of King's College has appointed John Phillips, M.A., M.D., Assistant Physician Accoucheur and Assistant Physician for Diseases of Women and Children, F. F. Burghard, M.D., M.S., Assistant Surgeon, and G. L. Cheatle, M.R.C.S., Sambrooke Surgical Registrar.

THE proposal of the Brighton Sanitary Committee for the Council to hold a meeting early in the ensuing year to adopt the Notification of Infectious Diseases Act at that town has been overwhelmingly rejected by the Council.

IMPROVED FACILITIES FOR INVALID TRAVELLING BY RAIL AND SEA.

CALAIS AND THE NEW HARBOUR.

(FROM OUR SPECIAL CORRESPONDENT.)

The Old Town and the New.—The Increase of Population.—The Registration of Foreigners.—Travellers and Port Improvements.—The Water-supply and Drainage of Calais.

THE old town and fortress of Calais, which for so long were associated with the varied fortunes of English history and English arms, and which, in the main, were built by Englishmen, are now but a memory of the past. The grey and stout city wall the English built has been destroyed, the protecting moat is filled over, and contains now a modern egg-shaped sewer of recent construction. Here and there an old gateway with its drawbridge remains, and is preserved as a historical monument. Then the fine old belfry, with its harmonious silver-toned chimes, which the English also built, still stands erect and majestic, and is likely to be for many a long year the chief architectural attraction Calais can offer to its foreign visitors. All these things are but vestiges of the past. Calais, even as a municipal entirety, has also ceased to exist. The old and quaint Town Hall is empty, the Council Chamber is silent. The antique and historical town of Calais is now merged into, and almost swallowed up by, the very modern, but more prosperous and larger, suburban and manufacturing commune of St. Pierre. At the Town Hall of St. Pierre the Municipal Councillors of Calais now sit and deliberate, and all public questions either relating to health matters or other interests must be treated in common. Yet, so recently as 1885, these two communities were absolutely separate. Now they are both firmly bound together by the iron link of a most extensive circle of fortifications. Those whose experience of military matters does not extend beyond our pacific island home, can have no conception of the magnitude of the Calais fortifications; and when we complain of the neglect of sanitary works in France, and vaunt their greater development in England, we should bear in mind that, as we have not been compelled to squander public wealth on such extensive military defences, we are better able to afford the cost of sanitary improvements. The new fortifications of Calais now embrace both St. Pierre and Calais, and thus no scheme of drainage, water-supply, hospital accommodation, &c., can be entertained which does not deal with the two communities. As the population of Calais is estimated at 14,000 and that of St. Pierre at 44,000, it will be seen at once how completely the position of affairs has been altered. At Calais the houses are very old, and often closely cramped together. At St. Pierre the houses are all quite new. The population of Calais has increased, but in a very slow ratio when compared with that of St. Pierre. Thus in 1827 there were 9459 inhabitants at Calais and 4957 at St. Pierre—total, 14,416. In 1857 St. Pierre was ahead, the figures being: Calais, 11,979; St. Pierre, 12,422—total, 24,391. Ten years later, in 1867, while the population of Calais remained almost stationary—i.e., 12,723—St. Pierre rose to 17,294—total, 30,021. Now, as already remarked, out of a total of 58,000, 44,000 belong to St. Pierre.

All these facts must be taken into consideration in order to understand how great the transition has been; and, without such general knowledge of the situation, it would be impossible to deal with sanitary problems involved. These, it must be confessed, have been strangely neglected; but I would not wish to complain of the neglect in this respect without acknowledging how great is the progress effected in other matters. To the traveller from England the enlargement of the port is the first thing noticed. By the constant use of dredgers and two powerful sluicing basins the depth of the channel will be maintained with 13 ft. of water at the lowest spring tides, giving at the pier-head at high water from 29 ft. 6 in. to 37 ft. 9 in. of water. The largest sluicing basin is not, however, yet completed. Nevertheless, the service of the Channel packets between France and England can be carried out at the North Quay at all hours and under all conditions of tide. I saw one of the largest steamers swing round within the port just an hour before low tide. This saves the passengers a very unpleasant experience. Formerly such a ship would have had to back out of the harbour and turn round when once at sea. Most extensive tidal docks have been constructed, some with 26 ft. 3 in. of water, others with 23 ft. 6 in. of water. These docks are connected with eight lines of railway. Steam and hydraulic cranes exist for the use of the ships, and there are admirably built store-houses for merchandise. The canal communication with the port has also been improved, so that now the largest barges can come to Calais. No one can contemplate these vast ameliorations without being impressed by the gigantic character of the works and the immense change which has been effected. Needless to say that this opens out a new and a most urgent sanitary problem. It has already been seen how rapidly the joint populations of St. Pierre and Calais have increased of late years and before the new port was built. What, however, will be the increase now that great works are terminated, and what interest have we in England in such development? Our interest is clearly defined, and it is twofold. First, there is no other foreign port through which so many Englishmen pass in the course of the year. Secondly, there has been a great augmentation in the resident English population of Calais and St. Pierre.

When inquiring into the sweating system in various English towns I was constantly met with the suggestion that a pole tax should be inflicted on foreign workmen, or that the importation into England of foreign pauper labour should be prohibited. Without seeking to discuss in detail, in this place, the economic problem involved in such proposals, it struck me as a somewhat narrow view to take, as it seemed like the policy of the politicians who, on this subject, did not see beyond their back yards. Public health undoubtedly is compromised by the dirty habits of some of the foreigners who settle in our great towns. Their presence does occasion overcrowding, and contributes to so lower the rate of wages in certain and special trades that the workers cannot earn enough to keep themselves in health and strength. But how much greater would be the overcrowding and fatal the fall in wages if all the English workers who now earn their living abroad were sent back to England, or even if foreign countries refused to admit any more strangers. The main industry at St. Pierre-les-Calais is the manufacture of tulle, and this delicate material is made to some extent with English machinery and to a large extent with the aid of English workmen. The French Government, also troubled by the presence of so many foreigners in France—their number in proportion is far greater than the number of foreigners who live in England,—recently issued a decree to the effect that all foreigners resident in the country must register their names. No less than 1700 foreigners have thus been registered in Calais. As it is only the head of the family who makes the declaration this represents probably a population of some 5000 people. It may be said therefore that from 8 to 10 per cent. of the resident population of Calais are foreigners registered as such. The details concerning the 1700 persons now registered have not yet been fully drawn up; but I have an analysis of the 1512 declarations first made. Naturally, being the closest neighbours and natives of a country where wages are not so high as in

France, the Belgians stand first on the list. Out of the 1512 foreigners registered 651 are Belgians, and this number represents 531 men, 401 women, and 768 children; a total therefore of 1700 Belgians. Next on the list are the English, who have made 552 declarations, which represent 379 men, 374 women, and 726 children; total 1479 British subjects. The remaining 309 declarations comprise a variety of other nationalities. As the total of the 1203 Belgian and English registered families represents a population of 3179 men, women, and children, it is probable that the 1700 foreigners now registered constitute with their families, as I said before, a total population of 5000 persons. The great majority of the English come from Nottingham, and I am not aware that the rate of wages at Nottingham is so very high as to support easily the return of these workers to their native town. Yet, if we drive foreigners away from England, it is only natural to expect that Englishmen will be sent back to us from abroad; and the method of registration adopted—the figures I have just given—show that the French have already taken measures to do so at any moment if they think fit.

Naturally, with the development of the Port of Calais, the number of English and foreign residents is likely to still further increase; while the augmentation of the passenger traffic is quite fabulous, and altogether out of proportion to the other French ports. The following table, giving the yearly number of passengers between England and France by the three principal routes, sets forth this fact in a conclusive manner:—

	Calais.	Boulogne.	Dieppe.
1880	197,916	147,606	69,565
1881	204,591	157,034	78,831
1882	223,391	144,310	81,090
1883	210,199	126,635	85,084
1884	183,433	97,050	67,156
1885	190,595	96,077	62,604
1886	215,984	118,877	67,419
1887	235,695	113,007	65,835
1888	247,870	106,678	68,970
1889	332,230	106,427	179,099

The figures for 1889 are only given for the eleven months and conclude on Nov. 30th.

These figures set forth in eloquent terms the extraordinary success achieved by the Calais route in comparison with its rivals. They also show that the sanitary condition of Calais is a matter of international importance. Yet sanitary matters have, unfortunately, been neglected, and this is probably the reason why the death-rate is high. Many other French towns, however, are not better off in this respect than Calais. During the last five years the death-rate seems to have varied from 24 to 27 per 1000 per annum. It would, doubtless, have been higher still but for the fact that Calais at least possesses a good water-supply. This is derived, at a distance of about eight miles, from Guines, the place celebrated in history as the Field of the Cloth of Gold. Here the soil consists of sand and small stones with an under-stratum of clay and sandy soil. The water comes from below the clay. It is gathered by a system of subsoil drainage, and is pumped up into reservoirs at a height of fifty-five metres, assuring to the town of Calais a pressure of forty metres. The water, after filtration, is delivered in iron pipes, and is thus protected from accidental contamination. The supply should amount to seventy-five litres per head per day; but the tulle factories take more than their share and thus reduce the general supply. The water is pure, though it has the very general defect of being too calcareous. Also there is the more important objection that the supply is not compulsory and private wells are still tolerated. In the better class of houses, of course, they have been abolished, and the town engineer assured me that nothing but the town water-supply was drunk at the hotels and cafés. Still, wherever the use of private wells is allowed there is always some danger. In a town like Calais wells are all the more dangerous as the cesspool system is still enforced. Indeed, the idea of abolishing cesspools has not yet dawned on the authorities. They acknowledge that the construction of sewers would be a good thing, but this only on the old French model—that is, sewers destined to receive the rain and slop water, and not the soil. Perhaps, however, when the progress accomplished in Paris in this respect is better known, the authorities may change their opinion. In any case, the drainage of Calais, and especially of St. Pierre, is especially difficult, for the simple reason that there is no fall. A great number of places are actually below the level of the sea; and if it were necessary, for the sake of resisting an invading army, the whole of the surrounding district could be flooded. Most of the streets have no sewers; there is surface drainage for slop water, and the rest goes into the cesspools. There are, however, two large sewers and some minor sewers. Several of these have their outfall in the inner basin of the old port, which faces the old and abandoned railway station of Calais town. Many travellers will remember the abominable odours that prevailed at this spot when the tide was out and the fishing-smacks lay softly in the mud. This little basin is called the Basin du Paradis, a name which might have been given satirically. Strange to say, those who make the greatest use of the basin object to its being cleansed. The town has several times tried to dredge it out, but the shipowners staunchly objected, on the ground that their ships would be injured if they did not have plenty of soft mud to rest upon when the tide went out. The town engineer (M. A. Dagniault) has drawn up an entire plan for the draining of the whole town, and, in spite of the unfavourable topography, contrives to give a fall of 2 in 1000 to his sewers. But there seems no prospect of this scheme being adopted at present, as public opinion is not yet alive to the importance of the subject. A new sewer has, however, been constructed of late. It runs along the Rue Bertoire, and thence pursues the course of the moat that was in front of the old rampart, falling into the Basin du Paradis. It is an egg-shaped sewer, eighty centimetres broad, and receives about two-thirds of the drainage of the old town, or of Calais proper.

All these facts show how much behind the town of Calais is in matters of sanitation; but the worst still remains to be related. There is a small district at the foot of the lighthouse of closely built fishermen's dwellings, where the houses are utterly devoid of any sort of sanitary accommodation. Not only are there no closets, but the inhabitants strongly object to the presence of them. Also, the houses have often several owners, and if one consents to the construction of a closet, the other and joint owner will probably object. The authorities have sought to solve the difficulty by building a shaft, which is placed unpleasantly near the fish market. Here, every morning, the inhabitants of this little district come and empty their vases containing the night soil. Of course this is not thrown down the shaft with very great accuracy of aim, so that those who arrive late cannot approach the opening, and content themselves with throwing their filth on the sides and the ground. Thus every day, and till the scavengers come to clear up and flush the place, a fearful nuisance is created. The district which rejoices in this primitive method of draining is called the Courgain, and, at a distance, seems one of the most picturesque parts of Calais. The time has surely arrived when public attention should be called to such a state of things. The existence of these grievances is not known and not realised by the public at large; but now that Calais is flooded by passengers from all parts of the world, it is urgent that these defects should be brought to the notice of the public and the authorities. Fortunately the houses are low in Calais, and the town, quite unsheltered, is exposed to the four winds. This doubtless contributes powerfully to purify the atmosphere.

Calais, December, 1889.

MEDICAL TRIAL.

LEESON *v.* THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION AND MARSHALL.

THIS was a motion brought in the High Court of Justice, Chancery Division, before Mr. Justice North, on Friday, the 13th inst., on the part of Mr. Joseph Frederick Leeson, a physician, to restrain the General Council of Medical Education and Registration from removing his name from their Register of general practitioners until the trial of the action, and from publishing resolutions passed by them on Nov. 28th, 1889, to the effect that he, Mr. Leeson, had been guilty of infamous conduct in a professional respect, or their direction to their registrar to erase his name.

Mr. Cozens-Hardy, Q.C., and Mr. George Henderson, for the plaintiff, in support of the motion, said they could not, on the authorities, ask his lordship to go behind the finding of the Council if it was a matter within their jurisdiction regularly and *bonâ-fide* conducted. They contended, however, that the inquiry was bad for several reasons—that their own rules had not been complied with; that the inquiry was (as they said) as to whether Mr. Leeson had covered Mr. Harness in acting as medical electrician, a matter he had a right to do; that it was directed against Harness while professedly made into the conduct of Leeson; and that two of the judges were incapacitated so as to vitiate the whole inquiry, because they were members of the Medical Defence Union.

Mr. Everitt, Q.C., and Mr. Muir Mackenzie, for the Council, contended that the proceedings had been honestly and regularly conducted, and the court could not go behind the finding of the Council.

Mr. Justice North, on the question of the construction of the letter formulating the charge against Mr. Leeson, which he observed had not been very happily expressed, came to the conclusion that the plain meaning of the charge was that Mr. Leeson had been acting as cover for Mr. Harness, not merely as a medical electrician, but as a person acting as a registered practitioner; and so it had been understood and acted upon by all persons who had anything to do with the inquiry. Had it been otherwise it would have been in his power, and would have been his duty, to interfere. It being, however, an inquiry as to whether Mr. Leeson had acted as cover for an unqualified person to act as a registered practitioner, it was a matter in which, in his lordship's opinion, the Medical Council were alone the judges, and which he ought not and could not judge of subject to their acting regularly and *bonâ fide*. Upon this part of the case it was said that a standing order or rule had been made on the very day of the inquiry for the mode of conducting such inquiries, and at first sight that did look strange; but, on looking at what was actually done, he was convinced that the rules were only what ought to have been made, and the inquiry would have been conducted in the same way if the rules had not been made. Another matter of complaint dealt with by his lordship was that the mode of conducting the inquiry laid down by the Council's standing orders had been departed from by allowing the solicitor of the Medical Defence Union to take it up at a certain point. That, his lordship thought, was within their power, and was not prejudicial or unfair to the person accused. Another point taken on the part of the applicant was that certain matters had been before the Council in the inquiry that were not evidence. The Council, he pointed out, were not in a position to administer oaths, and could not be guided only by what would be strict evidence in a court of law. He did not consider that the proceedings were in any way invalidated by such a cause as that. There was another point on which he had some hesitation, it being a point of law, as to whether, the parties having a right to have it decided at the hearing, he ought not to postpone it, and there was a question for the trial whether the injunction ought not to go; but being satisfied, as he felt, that on other grounds there was no case for an injunction, he took upon himself the decision of what was a point of law at this stage. The point was whether the judicial proceedings of the Council were invalidated by reason of two members out of some thirty who sat on the investigation being interested parties. If they were interested, it was clear law that the proceedings would be invalidated; but was it necessary that their interest should be a pecuniary interest for that result to follow? In this case the two members of the Council were subscribers to the Medical Defence Union of 10*s.* a year, and were under a guarantee to that society, the society being, in fact, the prosecutors. To consider the effect of this argument his lordship looked at the objects of the Union, which comprised not only the prosecution of unregistered practitioners and the removal of persons guilty of unprofessional conduct, but the protection of practitioners. They were perfectly impartial; their duty as members of the Union was as much for the protection of Mr. Leeson as a qualified practitioner as to have him removed if he ought to be removed. This point of law, therefore, his lordship decided in favour of the defendants. There was one other point his lordship dealt with. It was argued that the inquiry was not *bonâ fide* because the acts and conduct of Harness had been gone into, and it was said the inquiry was not really into Leeson's conduct so much as into Harness's. That was so in a sense; but it was necessary and proper to inquire into Harness's acts for the purpose of seeing what it was that the accused was acting as a cover of; and that being so, he could not say the inquiry was not *bonâ fide*. His lordship therefore refused the motion.

This decision of Mr. Justice North was appealed against by the plaintiff on Wednesday the 18th inst., in the Court of Appeal, before Lords Justices Cotton, Bowen, and Fry.

Mr. Rigby, Q.C., Mr. Cozens-Hardy, Q.C., and Mr. George Henderson appeared for the appellant; Mr. Everitt, Q.C., and Mr. Muir Mackenzie for the General Medical Council; and Mr. Sebastian watched the case for the company, who were not parties to the action.

The arguments were concluded on the following day, when their lordships announced that it was their intention to reserve judgment, and expressed a hope that they might be able to deliver it on Saturday, the 21st inst.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Typhoid Fever at Longton, by Mr. SPEAR.[1]—Longton is one of the southernmost of the pottery towns in Staffordshire, and after certain regular occurrences of fever amongst its 35,000 inhabitants for a number of years past, 16 deaths from typhoid fever occurred in 1888, and 13 more in the five months January–May of the present year. In all, during this latter period of seventeen months Mr. Spear heard of 66 household invasions, representing 155 attacks, and as he was able to regard these as the total occurrences of the disease that had taken place he sets the mortality rate at nearly 19 per cent., which must be regarded as an unusually high one. Considerable details are given in the report as to the incidence of the disease, in the respective months, on age, and on sex; and it is pointed out that in no less than 35 houses multiple attacks took place; these, in some instances, amounting to seven and eight in a single house. Only 14 second attacks took place within a fortnight of the first one, and having regard to dates and to the circumstances of household attacks which are set forth in some detail, Mr. Spear feels justified in regarding defective local sanitation, and especially the faulty methods for the disposal of excremental refuse about dwellings, as having afforded the necessary means by which the poison of typhoid fever, when once introduced, had opportunity for spreading itself. But there still remain a number of primary invasions in families to account for, and all the various causes usually associated with typhoid fever are considered in this connexion, the result being that milk and food supplies, sewerage and drainage are set aside. The question of water-supply is dealt with at considerable length. The service is in the hands of the North Staffordshire Water Company, and details are given as to all the various sources from which the supply is derived, and as to the methods in which mingling of waters derived from different sources takes place before the supply reaches the different towns and places within the area of the company's service. Some suspicion did seem to attach to one of the sources in question, and this was, to some extent, endorsed by the result of chemical analysis. The question of possible pollution during transit from the company's works along mains and pipes to the several households and localities is also entered into; but the whole service was found to be very complicated, and in the end Mr. Spear was unable to go beyond expressing a fear that, as regards the medium by which the several scattered initial cases which appeared as independent foci had arisen, the water-supply was not free from suspicion; and he states that one supply especially—namely, the Normacot service—appeared to demand close attention. This view is maintained in certain recommendations appended to the report; and especial reference is there also made to the need for effecting improvement in the closet accommodation of the district by

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means either of waterclosets or of privies of such capacity that storage of excremental refuse in the vicinity of houses shall be limited to accumulations of not more than one week's duration.

Diphtheria and Enteric Fever in the Penistone District, by Mr. SPEAR.[1]—The diphtheria in this district followed on a somewhat similar prevalence during 1881–82, and sporadic cases of diphtheritic sore-throat have since been by no means uncommon. This is an important fact as bearing on the subsequent prevalence in 1888–89, when fifty-seven households and 103 persons were attacked in Penistone and Thurlestone, and the mere circumstance that the connecting link between the occurrences could not be actually traced in no way detracts from the significance in sequence of [the several events. There have also been two occurrences of enteric fever—one in the Penistone rural and the other in the Thurlestone urban district. The former had a Board school for its centre, and there appears but little doubt that water-pollution was associated with it; and this notwithstanding the fact that the results of chemical analysis could not satisfactorily decide as to this. The occurrence at Thurlestone could not easily be traced to its source, but the conditions of excremental pollution which were found to be associated with it were precisely those so commonly identified with the appearance and spread of this disease. Unfortunately, as regards the Penistone urban district, advice given in 1887 by Dr. Gresswell has hardly been acted on. Much sanitary amendment is also called for in the Penistone rural sanitary area.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5646 births and 4235 deaths were registered during the week ending Dec. 14th. The annual rate of mortality in these towns, which had been 18·2, 19·0, and 21·5 per 1000 in the preceding three weeks, further rose last week to 23·1. During the first eleven weeks of the current quarter the death-rate in these towns averaged 18·8 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1879–88. The lowest rates in these towns last week were 17·1 in Norwich, 18·0 in Brighton, 18·0 in Derby, and 19·2 in Birmingham. The rates in the other towns ranged upwards to 31·1 in Manchester, 31·9 in Oldham, 32·3 in Blackburn, and 34·7 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 343 and 383 in the preceding two weeks, were last week 378; they included 105 from whooping-cough, 74 from measles, 63 from scarlet fever, 59 from diphtheria, 40 from "fever" (principally enteric), 37 from diarrhœa, and not one from small-pox. These zymotic diseases caused the lowest death-rates during the week in Leicester and Huddersfield, and the highest rates in Bolton and Plymouth. The greatest mortality from whooping-cough occurred in Portsmouth, Bolton, Hull, Wolverhampton, and Bristol; measles in Derby, Nottingham, Bradford, and Sunderland; scarlet fever in Liverpool, Wolverhampton, Bolton, and Plymouth; and "fever" in Birkenhead. The 59 deaths from diphtheria in the twenty-eight towns included 35 in London, 5 in Salford, 3 in Plymouth, 2 in Liverpool, and 2 in Oldham. Small-pox caused no death in any of the twenty-eight great towns. Only one small-pox patient was under treatment at the end of the week in the Metropolitan Asylum Hospitals, and one in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of the week was 1667, against numbers increasing in the preceding twenty-four weeks from 559 to 1663; 144 cases were admitted to these hospitals during the week, against 132 and 154 in the preceding two weeks. The deaths referred to diseases of the respiratory organs, which had increased in the previous seven weeks from 281 to 432, further rose last week to 552, and exceeded the corrected average by 31. The causes of 103, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Leicester, Sunderland, Blackburn, and Birkenhead; the largest proportions of uncertified deaths were registered in Oldham, Hull, Liverpool, and Huddersfield.

[1] Eyre & Spottiswoode, East Harding-street, E.C.; Adam & Charles Black, Edinburgh; Hodges, Figgis, & Co., Dublin. Price 6*d*.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding five weeks from 19·8 to 23·9 per 1000, was 23·6 in the week ending Dec. 14th; this rate exceeded by 0·5 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 16·3 and 17·4 in Leith and Perth, to 25·7 in Aberdeen and 26·6 in Glasgow. The 604 deaths in the eight towns showed a decline of 8 from the number in the previous week, and included 20 which were referred to measles, 20 to diphtheria, 16 to whooping-cough, 14 to diarrhœa, 8 to scarlet fever, 7 to "fever" (typhus, enteric, or ill-defined), and not one to small-pox; in all, 85 deaths resulted from these principal zymotic diseases, against 81 and 67 in the preceding two weeks. These 85 deaths were equal to an annual rate of 3·3 per 1000, which exceeded by 1·2 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been, 7, 18, and 11 in the preceding three weeks, rose last week to 20, of which 11 occurred in Glasgow and 8 in Edinburgh. The deaths from diphtheria, which had been 9 in each of the previous two weeks, rose last week to 20, and included 5 in Glasgow, 4 in Edinburgh, 3 in Dundee, and 3 in Leith. The fatal cases of whooping-cough, which had been 21 and 20 in the previous two weeks, further declined, on the other hand, to 16, of which 9 were returned in Glasgow, 3 in Dundee, 2 in Edinburgh, and 2 in Greenock. The 14 deaths attributed to diarrhœa exceeded the numbers in recent weeks, and included 7 in Glasgow and 3 in Dundee. The fatal cases of scarlet fever were fewer by 5 than the number in either of the preceding two weeks; 3 were returned in Glasgow and 3 in Leith. Six of the 7 deaths from "fever" occurred in Glasgow. The deaths referred to diseases of the respiratory organs in the eight towns, which had been 121 and 166 in the preceding two weeks, further rose last week to 167, and exceeded the number in the corresponding week of last year by 64. The causes of 78, or nearly 13 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 28·7 and 27·8 per 1000 in the preceding two weeks, rose to 32·2 in the week ending Dec. 14th. During the first eleven weeks of the current quarter the death-rate in the city averaged 26·2 per 1000, the mean rate during the same period being 17·2 in London and 19·6 in Edinburgh. The 218 deaths in Dublin exceeded the number in the previous week by 30; they included 6 which were referred to "fever" (typhus, enteric, or ill-defined), 3 to whooping-cough, 2 to measles, 2 to diarrhœa, and not one either to small-pox, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 9, 26, and 21 in the preceding three weeks, declined again last week to 13; they were equal to an annual rate of 1·9 per 1000, the rate from the same diseases being 1·9 in London and 3·1 in Edinburgh. The deaths referred to "fever," which had been 6, 11, and 12 in the previous three weeks, declined again last week to 6; while the fatal cases of whooping-cough, measles, and diarrhœa were almost identical in number with those returned in the previous week. The deaths both of infants and of elderly persons exceeded the numbers in the previous week. Seven inquest cases and 5 deaths from violence were registered; and 68, or nearly a third, of the deaths occurred in public institutions. The causes of 25, or nearly 11 per cent., of the deaths in the city were not certified.

THE BULGARIAN CENSUS.

The last Bulgarian census was taken on Jan. 1st, 1888. the results thereof having only recently been finally published. The population of North and South Bulgaria, as Bulgaria proper and Eastern Roumelia are now styled, had at the beginning of last year a population of 3,154,375 persons. The population of Bulgaria proper was 2,193,434, and of Eastern Roumelia 960,941. The previous census was taken in 1881, at which time the enumerated population of Bulgaria proper was 2,007,919; the increase of population in this portion of the Bulgarian principality in the seven years was 185,515, or rather more than 9 per cent. The

movement of population varied very greatly in the different prefectures, owing partly to changes of boundaries; for instance, the population of Sistova appears to have more than doubled itself in the ten years, and that of Lofcha and Varna to have largely increased, while, on the other hand, an actual decrease of population is shown in five of the prefectures, the largest proportional decrease occurring in Vratza and Tirnovo. With regard to the nationality of the population enumerated at the recent census, it is stated that of the population of the entire municipality 2,326,224 were Bulgarians, 607,372 Turkish-speaking Mussulmans, and 58,326 Greeks, leaving a balance of 162,453 described as "various," which included Roumanians, Jews, Gipsies, Slavs of non-Bulgarian race, and Europeans of various nationalities. With reference to these nationality figures it should be pointed out that the Bulgarian population is shown to have increased no less than 16 per cent. during the seven years, while the Mussulman population is said to have decreased by 9 per cent. It may be doubtful whether these figures may have been influenced to some extent by political aspirations; but there would appear to have been, without doubt, a considerable Mussulman emigration in recent years, especially from the prefectures of Tirnovo, Shoumla, Rasgrad, and Plevna. According to the census report the principality contained at the beginning of 1888 six towns having populations exceeding twenty thousand persons; the two largest towns being Philippopolis with 33,032, and Sophia with 30,428. A further list of fourteen towns is given, showing populations ranging between five thousand and twenty thousand persons. The increase of the population of Sophia between the last two censuses in 1881 and 1888 was very nearly equal to 50 per cent. These figures afford evidence of the vigorous vitality of this comparatively new people. It is moreover satisfactory to know that the Bulgarians recognise the value of vital statistics, as evidenced not only by their census report, but by an elaborate report upon the "movement of the population" in the principality during the year 1881, which occupies 1349 pages, but which has only just been issued.

THE SERVICES.

ARMY MEDICAL STAFF.—Brigade Surgeon Saml. Archer to be Deputy Surgeon-General, ranking as Colonel, vice William Cattell, placed on retired pay (dated Nov. 23rd, 1889); Surgeon-Major John Peter Hamilton Boileau, M.D., F.R.C.S. Irel., to be Brigade Surgeon, ranking as Lieutenant-Colonel, vice Samuel Archer (dated Nov. 23rd, 1889); Surgeon Whitley Bland Stokes, M.B., has retired upon temporary half-pay (dated Dec. 1st, 1889); Brigade Surgeon T. Walsh has been appointed Principal Medical Officer on the Staff of the North-Eastern Military District; Deputy Surgeon-General J. Landale has been appointed Principal Medical Officer on the Staff at Cork.

YEOMANRY CAVALRY.—Herts: Lovell Drage, M.B., to be Surgeon (dated Dec. 14th, 1889).

VOLUNTEER CORPS.—*Rifle:* 6th Volunteer Battalion, the King's (Liverpool Regiment): Ernest Wykeham Barnes, Gent., to be Acting Surgeon (dated Dec. 14th, 1889).

VOLUNTEER MEDICAL STAFF CORPS.—The Manchester Division: Surgeon G. H. Darwin resigns his commission (dated Dec. 14th, 1889).—*Infantry:* East London Brigade: Surgeon O. M. White, 1st Tower Hamlets Rifle Volunteer Corps (the Tower Hamlets Rifle Volunteer Brigade), to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889).—North London Brigade: Surgeon G. D. P. Thomas, 18th Middlesex Rifle Volunteer Corps, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889).—South London Brigade: Surgeon-Major A. Clark, 4th Middlesex (West London) Rifle Volunteer Corps, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889).—West London Brigade: Surgeon-Major S. P. Smith, 1st Volunteer Battalion, the Royal Fusiliers (City of London Regiment), to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889).—Surrey Brigade: Surgeon-Major W. R. Brunton, 1st Surrey (South London) Rifle Volunteer Corps, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889.—Home Counties Brigade: Surgeon-Major W. J. Shone, 1st Bucks Rifle Volunteer Corps, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889).

Correspondence.

"Audi alteram partem."

ACUTE HÆMORRHAGIC NEPHRITIS.

To the Editors of THE LANCET.

SIRS,—I have read with interest the original article in THE LANCET of Dec. 14th by Dr. Crooke and Dr. Nason "On the Occurrence of Acute Hæmorrhagic Nephritis in Suppurative Meningitis," as I have lately had under observation three cases of hæmorrhagic nephritis occurring suddenly in patients suffering from recent acute myelitis, and I have been hitherto seeking an explanation of the phenomenon.

With regard to my first case, I speak from memory, as I have not the notes by me, but I believe Dr. Galloway, the then house-physician, kept a full record of the case. The patient was a middle-aged man, who had been admitted into the hospital about a fortnight before with paraplegia, the result of recent transverse myelitis, when Dr. Galloway drew my attention to the great increase of diuresis that had suddenly occurred (100 ounces per diem), together with hæmaturia. This was very excessive, and the patient soon died. On post-mortem the kidneys were found to be intensely hyperæmic, the medullary portion being almost black.

The second case occurred shortly after in the same ward, and from the notes of Dr. Skyrme, house-physician, I abstract briefly as follows:—W. C——, aged thirty-one, admitted on Oct. 23rd, 1888, with symptoms of transverse myelitis of one week's duration. In this case the state of the urine was noted on admission; it was found normal, reaction acid, quantity about forty ounces in the twenty-four hours. The day after admission 110 ounces were passed. On Nov. 8th a large quantity of blood appeared in the urine; from this date up to Nov. 16th the quantity of urine passed was between seventy and ninety ounces. He lived till Dec. 27th, when he died comatose. The kidneys were enlarged, very hyperæmic, and gave evidence of severe parenchymatous inflammation.

The third case, according to the notes of Dr. Skyrme, house-physician, was a female aged twenty-seven, admitted on Nov. 28th into Rachel ward, suffering from acute ascending myelitis of one week's duration. Urine on admission was about 60 oz. daily, and contained a trace of blood; by daily increases it reached 88 oz. on Dec. 21st, when it gradually diminished till the day of death, Dec. 31st. The amount of blood also increased in amount after admission. The kidneys were similar in appearance to those found in the two other cases. With respect to the causation of the nephritis, I was at first inclined to attribute it to extension upwards of an inflammation of the bladder; but as in the second case the urine was normal up to the onset of the renal symptoms; whilst in the third case—although the hæmorrhage had commenced at the time of admission, I was satisfied there was no cystitis—some other explanation must be sought for. And this I am inclined to think will be found, as Dr. Crooke and Dr. Nason suggest, in disturbance of the vaso-motor system. As an additional support to this view I would point to the remarkable increase in diuresis that occurred in the three cases I have related during the onset of the nephritis.—I am, Sirs, yours faithfully,

Queen Anne-street, Dec. 14th, 1889. CHARLES HY. RALFE.

THE TREATMENT OF CANCER BY ELECTRICITY.

To the Editors of THE LANCET.

SIRS,—Many authorities might be quoted to show that the interruption of strong galvanic currents arrests the heart's action in diastole through the inhibitory action of the stimulated pneumogastric nerve. I am also aware that Ziemssen, by direct stimulation of the heart by strong galvanic currents, increased the frequency of the pulsations, "but to cause a diminution very considerable strength of current is necessary, at least in normal hearts, although it may be different under pathological conditions. It is unnecessary to say that great caution must be used in such experiments."[1] The strength of the currents used to produce these results is not given, but I should think a current of 600 milliampères, as used by Dr. Parsons in the

[1] Erb's "Electro-Therapeutics," translated by Dr. de Watteville, p. 684.

treatment of cancer, might be called one of "very considerable strength." "Further than this, it has been ascertained by experiments on animals that even moderate voltaic currents suddenly interrupted could, when applied to the nervous system, cause death; while very much stronger currents applied to other parts of the body were found to be quite harmless in their action."[2] The above paragraph appears in Dr. Parsons' paper in April last[3], but is omitted from the almost identical paper that appeared in a recent number of THE LANCET, probably in consequence of his having since "passed 600 milliampères across the pneumogastric in the neck in a case of Dr. Burton's, and the circulation, if anything, improved." The chief object of my letter, which appeared a fortnight ago, was to try to deter others from attempting Dr. Parsons' mode of treatment, for I still think (and not purely on theoretical grounds) that the operation "is not free from danger to the patients." I cannot acknowledge that the experiment with a solution of iodide of potassium redescribed by Dr. Parsons in his paper in THE LANCET of Nov. 30th "demonstrates in a conclusive way that the passage of a constant current does not cause any decomposition between the poles, although there must of necessity be an exchange of atoms between the molecules," when applied to animal tissue. I do not question the accuracy of his experiment, but in my opinion it does not warrant the conclusion he draws from it. "The exchange of atoms between the molecules" is a theory—the theory of Grotthüss—and may or may not be true. That no permanent and visible decomposition takes place in the interpolar region when a simple electrolyte is experimented on is well demonstrated by Dr. Parsons' experiment, but in my opinion it is not applicable to the human body, which is a mixed electrolyte. The third experiment mentioned in my letter of Dec. 3rd shows that a change can be demonstrated in the interpolar region when a current is made to traverse several heterogeneous electrolytes. The change to which I refer is a decomposition of molecules and recombination of atoms. In the middle cup, in the experiment I have quoted, the sulphuric acid is decomposed and sulphate of barium formed, and that is in consequence of the passage of an electric current and the transportation of ions. The physical questions involved in electrolysis are still so undecided, and are such subjects of controversy among scientific men, and so many different theories have been propounded to explain what takes place in a simple electrolyte, that it would be fruitless at present to try to arrive at a conclusion by any amount of argument as to what does and what does not take place in the passage of an electric current through the human body. From such experiments as I have brought forward showing some of the reactions which actually do take place when an electric current is passed through mixed electrolytes, I have been led to the opinion that probably some interpolar action does take place during the passage of a current through animal tissue.—I am, Sirs, yours faithfully,

Dec. 16th, 1889. W. E. STEAVENSON.

To the Editors of THE LANCET.

SIRS,—In your issue of Dec. 7th Dr. Steavenson takes exception to a statement made by Dr. Inglis Parsons, to the effect that "a constant current does not cause any decomposition between *the poles*." May I venture to suggest that the word "*poles*" is apt to be most misleading, unless one definite and distinct meaning is attached to it when speaking of electro-chemical decomposition. Faraday, who gave to this process the name of electrolysis, also invested it with a suitable nomenclature. He called the substance to be acted on an electrolyte, and the vessel which contains the electrolyte an electrolytic cell. The free ends of the conducting wires of a battery, usually then called respectively positive and negative poles, he termed electrodes, distinguishing them as anode, that by which the current left the battery to enter an electrolyte; and kathode, that by which the current left an electrolyte on its return to the battery. To prevent any confusion of terms, he called the two poles of a battery respectively anelectrode and kathelectrode. Such being the case, I would venture to ask if it would not be advisable to use these names given by Faraday instead of such a vague term as poles, now that the question of the part that electrolysis plays in electro-therapeutics is opening up a large field for discussion. At present we seem to use the term *poles* as signifying either: (1) the terminals of a battery, or (2) the anode and kathode of an electrolyte. Included with the first meaning, we might also enumerate the wires which connect the apparatus applied to the patient, or to the apparatus itself. Now owing to these two different interpretations of the term *poles*, we might be apt to think those in error who use it in a sense different from ourselves. If we refer to the two experiments described in Dr. Steavenson's letter, as performed by Dr. Inglis Parsons and himself, they will help to illustrate my contention. First, I will recall Dr. Inglis Parson's experiment. As an electrolyte, he used a standard solution of iodide of potash, contained in three vessels; the contents of the two outer vessels being made continuous with that of the middle one, by means of the same solution of iodide of potash supported and contained in the interstices of lamp-wick. I would particularly call attention to this fact, as it seems to have been overlooked, and it is of considerable importance in interpreting the experiment. Though the electrolyte was contained in three vessels, yet owing to the way their contents were connected these three vessels and lamp-wick media formed but one electrolytic cell, containing one homogeneous continuous electrolyte, and might be regarded as a curious-shaped cell having three enlarged portions (corresponding to the vessels) and two constricted portions (corresponding to the lamp-wicks) joining them. Such being the case, Dr. Inglis Parsons' statement that decomposition does not take place *between the poles*, is, when applied to his experiment, absolutely accurate, no matter which interpretation we give to the word poles, since there is only one electrolytic cell between the battery terminals, and it is in strict conformity with the law laid down by Faraday, that the liberated ions resulting from electrolysis appear at the electrodes only. But when we come to Dr. Steavenson's experiment, we find then that it makes a great difference as to which interpretation we follow. In his experiment Dr. Steavenson used three vessels, each of which contained a similar standard solution of iodide of potash, but the contents of the three cells were connected by copper wires—that is to say, the homogeneous solution did not form one continuous electrolyte between the battery terminals. Herein lies the difference, for by this means of connecting, Dr. Steavenson created in his experiment three separate and distinct electrolytic cells. A *sine quâ non* for a substance to be an electrolyte is that it be in a fluid form, hence the copper wires form breaks of continuity in the electrolyte. Electrolysis takes place in each vessel, that is to say, in each electrolytic cell, and to quote Dr. Steavenson "free iodine appeared at the positive ends of the pieces of copper wire and a large quantity of gas (hydrogen) at the negative ends." Precisely so. But none appeared at any other parts of his three electrolytic cells. The ions appeared as in Dr. Inglis Parsons' experiment at the electrodes only and not elsewhere. The centre glass vessel in Dr. Parsons' experiment corresponded to the centre of his electrolytic cell; the centre cell in Dr. Steavenson's experiment was a separate electrolytic cell, and in its centre, as in that of Dr. Parsons' single electrolytic cell, no ions were set free.

When now we, looking at Dr. Steavenson's experiment, recall the two interpretations of the term *poles*, I venture to think my contention about this usage becomes plain. If we adopt the first interpretation, that by poles we mean the terminals of the battery or their direct prolongations to the electrolyte, it becomes ridiculous to assert that in his experiment no decomposition took place between the poles. If, however, we use it in the second sense, as meaning the anode and kathode of an electrolyte, then the statement that no decomposition takes place between the poles is in conformity with all known laws of electrolysis. If we used the nomenclature I ventured to suggest, we should, in making our deductions from his experiment, say that electro-chemical decomposition does not occur between anode and kathode, though it does between anelectrode and kathelectrode. These terms may seem clumsy, and therefore not find favour with those accustomed to interpolar as a term; but if interpolar is to be retained when speaking of electrolytical effects, it ought to be qualified so as to definitely show whether it is meant to signify between the poles of a battery or those of an electrolyte between the battery poles. Before concluding, I would like to point out that Faraday noted one liquid could act as anode or kathode to another liquid in contact with it.

[2] Brit. Med. Jour., April 27th, 1889, p. 937. [3] Loc. cit.

By floating distilled water on a strong solution of sulphate of magnesia, and passing a continuous current upwards through the two liquids, he found that a layer of magnesia formed at the upper surface of the lower liquid where it touched the water, showing that the water acted as kathode. Since his time Dr. Gore, F.R.S., made a series of experiments, the descriptions of which and his deductions therefrom were published in the Proceedings of the Royal Society for 1881. In these, he states, "that every inequality of composition or of internal structure of the liquid in the path of the current must act to some extent as an electrode."

I venture to think that this should be kept well in mind by those who are studying the place that electrolysis takes in electro-therapeutics. In the animal body, fluids, having inequality of composition or of internal structure, and in contact with one another, exist, and we may reasonably expect them to act as anode and kathode to one another, in the same way that distilled water acted as kathode to the strong solution of sulphate of magnesia. Such being the case when a continuous current passes through an animal tissue, we should surely expect inter (battery) polar decomposition, and know, if we follow the laws of electrolysis, that no inter (electrolyte) polar decomposition can possibly take place. To use the old nomenclature suggested by Faraday: Decomposition may occur between anelectrode and kathelectrode, provided that more than one electrolyte or electrolytic cell be included in the external portion of the battery circuit; but it can take place *only* at the anodes and kathodes and the resulting ions are liberated only there. I am, Sirs, yours sincerely,

Austin Friars, E.C., December, 1889. H. W. D. CARDEW.

COLOTOMY FOR CANCER OF THE RECTUM.

To the Editors of THE LANCET.

SIRS,—This subject has of late attracted so much attention that I think it will interest your readers if I give a brief account of recent experience at the Middlesex Hospital.

Of the inguinal operation I have nothing to say, because it has only lately been performed in one or two cases.

Of 64 cases of cancer of the rectum (males 32, females 32) consecutively under treatment during the seven years from 1882 to 1888, 38 of both sexes were submitted to left lumbar colotomy; of these, 10 died—a mortality of 26·4 per cent. Excision of the rectum was performed in only 4 of these cases, and in 2 cases of cancer of the anus.

Of 18 males who underwent colotomy, 5 died—a mortality of 28 per cent. The causes of death were as follows:—(1) Pyæmia on the twenty-second day after the operation; (2) shock on the day after the operation (in this case the rectum had been excised as well); (3, 4) exhaustion on the seventeenth and twenty-sixth days after the operation; (5) syncope from incessant vomiting, with hæmatemesis, sixteen hours after operation, under chloroform. In 15 cases colotomy was performed to relieve the local disease from irritation by contact with fæcal matter; in the cases that recovered the benefit was very marked, the burning pain and tenesmus previously complained of being in almost every instance completely relieved. Of those who recovered, the average duration of their stay in hospital was thirty-eight days.

Of 14 cases in which colotomy had been performed, the average duration of life, dating from the time when symptoms of the disease were first noticed, was 19·7 months, the longest thirty-nine months: 4 lived from nine to twelve months; 1 from twelve to fifteen months; 3 from fifteen to eighteen months; 1 from eighteen to twenty-one months; 2 from twenty-one to twenty-four months; 2 from thirty-three to thirty-six months; 1 from thirty-six to thirty-nine months.

Of 4 cases in which no operation had been performed, the average duration of life was only 10·9 months, the longest, 24·7 months; 2 lived from three to six months; 1 from nine to twelve months; 1 from twenty-seven to thirty months.

The duration of life subsequently to colotomy in 14 cases averaged 6·5 months, the longest period being twenty-four months; 5 died under one month after the operation; 2 from one to three months; 3 from six to nine months; 1 from nine to twelve months; 2 from twelve to fifteen months; 1 from twenty-one to twenty-four months.

Of 20 females who underwent colotomy, 5 died—a mortality of 25 per cent. The causes of death in these cases were as follows: (1) Syncope under ether during the performance of the operation; (2) shock on the day after the operation; (3) peritonitis on the seventh day after the operation; (4, 5) exhaustion on the tenth and seventeenth days after the operation.

In 15 cases the operation was done to relieve the local disease; here also the benefit as to relief of pain and tenesmus was most marked.

In 5 cases the operation was needed to relieve symptoms of intestinal obstruction. Of those who recovered, the average duration of their stay in hospital was sixty days.

Of 10 cases in which colotomy had been performed, the average duration of life was 29·7 months, the longest period 76·4 months: 1 lived from three to six months; 1 from nine to twelve months; 3 from twelve to fifteen months; 1 from twenty-four to twenty-seven months; 1 from thirty to thirty-three months; 1 from fifty-one to fifty-four months; 1 from fifty-seven to sixty months; 1 from seventy-five to seventy-eight months.

Of 6 cases in which no operation had been performed, the average duration of life was 23·7 months, the longest 39·5 months: 1 lived from nine to twelve months; 1 from twelve to fifteen months; 1 from twenty-one to twenty-four months; 1 from twenty-four to twenty-seven months; 1 from thirty to thirty-three months; 1 from thirty-nine to forty-two months.

The duration of life subsequently to colotomy in 10 cases averaged 6 2 months, the longest period being 33 3 months: 5 died under one month after operation; 1 from one to two months; 2 from six to nine months; 1 from nine to twelve months; 1 from thirty-three to thirty-six months.

For further information on this subject I must refer your readers to the recently published Middlesex Hospital Surgical Report for 1888. I am, Sirs, yours truly,

December, 1889. W. ROGER WILLIAMS.

To the Editors of THE LANCET.

SIRS,—Will you be good enough to allow me space to reply to the criticisms of my colleague, Mr. Jessett, contained in his letter in THE LANCET of Dec. 7th, on my operation for inguinal colotomy for malignant disease of the rectum, which you published in your issue of Nov. 30th.

I accord the "novel method," in contradistinction to "my operation," to my colleague, and again emphasise that I do not wish in any way to detract from him the credit that the idea of this operation emanated from him, and was the outcome of his experience, gained in his experimental work in intestinal surgery on dogs, the report of which he published. With his assistance I performed the operation I described on the three cases "I reported" at the Cancer Hospital on March 2nd, July 30th, and Aug. 6th of this year respectively; two of these cases and the photos of their openings I had the opportunity of showing at the clinical evening of the Medical Society, in conjunction with the one case Mr. Jessett showed. The "novel method" Mr. Jessett described at that meeting and now in his letter differs, he says, in many important particulars from that described by me in my original paper, and he proceeds to mention the points of difference. However, in the one case he brought before the Medical Society he performed the operation (Sept. 28th last) in which the proximal end was cut long and occluded by a piece of rubber band, and the spur removed on the third day, and a remarkably good artificial anus was formed. Aided by the support of a truss he devised to fit the parts, no mucous membrane whatever protruded. The spur of invaginated intestine that Mr. Jessett showed at the same meeting was not removed from the man above alluded to, but from a female, a subsequent case on which he operated (Nov. 8th last), the operation was in itself successful. The report, however, of this case I hope my colleague may give on some future occasion. I quite agree in the dicta laid down by my colleague—viz., "that the bowels should be kept well opened for some three or four days by castor oil or some saline aperient, and the rectum washed out as far as possible once a day with warm water enemata"—a proceeding I thoroughly endorse and always endeavour to have carried out. But if it is possible, and the rectum capable of being relieved, what need be there "yet" for performing inguinal colotomy? More usually, and what actually was the condition in my three cases (reported), the rectum was occluded and impervious by reason of a mass of malignant growth causing complete obstruction of the bowels. Nothing could be got

to pass either up or down. Here, then, the operation was urgently called for. In my three cases each were *in extremis;* there were nausea and vomiting, absolute constipation, tongue coated, all appetite lost, and pulse enfeebled, and extreme emaciation; great torture endured in any attempt to obtain an evacuation, which became impossible. The three patients were actually on the point of death. I submit that in these cases the urgency for relief was so great—for, as is usually found, any proposal of operation at an early stage is put off by patients, and their sanction is not obtained until all hopes are given up—that to carry out my colleague's "novel method," and to await a further "four or five" days before an evacuation could be induced or the passing of flatus possible, and little or no food administered, would, in my small experience, jeopardise any chance of recovery for the patient. Although these cases were *in extremis* at the time of operation, all made a good and rapid recovery and increased in flesh, and two now present an admirable appearance; one has since died. I therefore demur that the "novel method" is at all times applicable in advanced cases of malignant disease of the rectum.

I am, Sirs, yours faithfully,

F. A. PURCELL, M.D., M.Ch.

Manchester-square, Dec. 8th, 1889.

DEFECTS IN THE MANCHESTER SYSTEM OF CHECKING OUT-PATIENT HOSPITAL ABUSE.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 7th you kindly notice the letter of Dr. Harris. You will observe that, as far as checking the abuse of the out-patient department at the Royal Infirmary, Manchester, is concerned, the patients may practically be divided into four classes; (*a*) urgency and accident cases, which are admitted at once without any inquiry; (*b*) those making under the "wage limit," who are also admitted; (*c*) those making *slightly over* the wage limit; and (*d*) those making a considerable wage over it. The latter class *may* be refused first treatment by the surgeon or physician on duty that day. Thus, practically all receive *first* treatment. But there are two very vital errors in the above scheme—first, those who are making slightly over the "wage limit" are allowed to attend at the infirmary for one month, on giving an understanding that they are going to, or have joined, the provident dispensary. Now the entrance-fee to the provident dispensary is sixpence, and the weekly subscription one penny, and benefits are not given until membership has existed for four weeks. Therefore by the above rule, if a man pay a little over sevenpence to the provident dispensary he has the power of demanding relief at the infirmary for four weeks, and can at the end of that time cease payments. Such a rule must be expunged. If the provident dispensary had a *cash* department, then the above condition of affairs could be easily met. But as it now is, the four weeks must elapse before he can participate in benefits. It is therefore to be hoped that not only will the committee of the infirmary allow the above rule to lapse, but that the provident dispensary will not only work the provident but a cash department as well. The second vital error is that a doctor of a provident dispensary has a *right* to send a provident dispensary patient to the infirmary for treatment, and that the infirmary must not ask any questions. Now, the chief objection to such an absurd rule is that the provident dispensary has most unfortunately dropped its "wage limit," and with the result that many of the provident members are in receipt of wages up to 40*s.* per week. Therefore, although the infirmary "wage limit" is 12*s.* and 18*s.*, the provident member making, say, 40*s.* can compel the infirmary doctors to treat him. It is to be hoped the infirmary committee will rescind this rule. It is a great pity that the provident dispensary ceased working its wage limit of 30*s.* I wish the doctors of the provident dispensaries there would meet together and not only insist on the "wage limit" being reintroduced, but would draw up a scale of fees for cash payments, and for surgical, dental, and obstetric work, and for certificates. It seems to be, though, that in Manchester the abuse of hospitals has only been shifted on to the provident dispensaries, and that no real good can be effected until the provident dispensaries are reformed. As we look to Manchester to show the way, I trust this will soon be brought about. It is well known that a great number of club doctors send their sick members to the charities so as to get rid of them. Is it not to be feared that the doctors of the provident dispensaries do likewise? It is very gratifying to see how this question of hospital reform is coming prominently to the front. It is to be hoped that as a profession we shall soon be able to provide the eight and a quarter millions of the industrial classes of this country with other means of providing themselves with efficient medical treatment than the present medical charities and poor law. That we must have a medical service with two departments—one giving treatment for *cash* payments (such plan as adopted by consultants and advised by the College of Physicians), and the other supplying it on the provident or insurance system—is recognised. The prescribing chemist, unqualified assistant, and that land shark of the medical profession, the bogus club doctor, as well as the one who visits for a 1*s.* or 6*d.*, and charges 2*s.* 6*d.* for the bottle of medicine—a cross between a chemist and a doctor—have been with us long enough. If we can sink petty trade jealousies and professional rivalry we shall succeed, but if the principle of the majority—"Never mind you, I'm all right"—be adopted, then it must be left to the lay public to legislate for us.

I am, Sirs, yours faithfully,

Liverpool. ROBERT R. RENTOUL, M.D.

THE PREVENTION OF RABIES.

To the Editors of THE LANCET.

SIRS,—The considerable importance of a portion of the subject matter of your leader on the prevention of rabies, which appeared in THE LANCET of Dec. 14th, is undeniable. And it is because of this very importance that I venture to hope that you will allow me to express an opinion contrary to one contained therein. The question of muzzling or not muzzling has unfortunately developed into a duel between the devout Pasteurian and the pseudo-zoophilist, and, more unfortunately still, the stronger adversary is, as I believe, supporting the wrong cause. The supporter of muzzling undoubtedly takes up a strong position. On the one hand, he has a sure and safe therapeusis for the disease; on the other, an unfailing system of prophylaxis. The question of therapeusis it would not become me to discuss, but against the suggested prophylaxis I must enter a strong protest. It is claimed that by a universal muzzling, applied for a limited time and followed by a strict quarantine, rabies would be stamped out for ever, so far as these islands are concerned. In the first place, and allowing that a universal muzzling is practicable, this doctrine assumes that rabies is a specific, an unalterable disease; that it always was rabies and will be rabies for evermore, or at any rate until eradicated by the muzzling process; and, further, that if all the *materies morbi* of rabies now in existence could be destroyed, the disease would never appear again. Against this view of the matter Pasteur's system of treatment affords a strong argument. It is claimed that by successive cultivations the *materies morbi* undergoes certain changes—in other words, that it obeys certain laws of evolution. If it obeys these laws in the laboratory, it must be allowed to obey them outside. That being so, rabies cannot be said to be a specific disease—at least not in the sense in which the word "specific" is generally used. It follows, then, that if it were possible to eradicate all the *materies morbi* of rabies which existed at a given time, we should have no guarantee that the disease would not appear again in the future, as it must have done in some time past. Leaving, however, this somewhat abstract view of the matter out of the question, there is a nearer and more practical point to be considered: that is, Is muzzling likely to lower to any appreciable extent the present annual mortality from hydrophobia? At the outset it is noticeable that, whilst the muzzling order now in force in certain localities carefully provides for the muzzling of dogs which have not got rabies, it affords a remarkably inefficient protection against those which have; for under the order the dog is only muzzled for the hour or two out of the twenty-four during which he happens to be out of doors. Hence the chances are about twelve to one that the dog will not have his muzzle on when the disease first manifests itself, and he certainly will not wait then to have the muzzle applied before he starts on his rabid career. It seems to have been overlooked, too, that a far sterner and more scientific method of prophylaxis against rabies has long been in force: that is, as soon as a dog shows signs of rabies it is promptly killed. What more thorough system of prophylaxis could possibly be adopted? Take the human

subject, for instance. The most thorough sanitarian would probably look forward hopefully to the result if every person who had contracted, say, syphilis were at once treated with euthanasia Yet, on the face of the fact that every dog who shows signs of rabies is killed at once, we are told that the number of cases of hydrophobia in the human subject is on the increase. It seems, then, absurd to suppose that the desired result is likely to be attained by the simple process of muzzling for a few hours of the day those dogs which have not yet had the disease.

I am, Sirs, yours obediently,

Chatham, Dec. 18th. ALEX. G. R FOULERTON.

*** Our correspondent has overlooked the fact that in certain countries where "muzzling" is generally enforced, rabies is practically absent—e.g., Germany.—ED. L.

THE TREATMENT OF SYMBLEPHARON.

To the Editors of THE LANCET.

SIRS,—*Apropos* Professor Snellen's (Utrecht) paper on symblepharon recorded in your recent report of the proceedings of the Ophthalmological Society, will you allow me to remark that the best method of dealing with such cases of extensive destruction of ocular and palpebral conjunctiva is by the transplantation of skin *en masse* without pedicle on to the surface of the eyeball itself? I have spoken of this operation elsewhere, and the accompanying photograph of a very bad case, occasioned by the impact of a piece of molten metal, treated in this way may be taken as evidence of the very pleasing results it is possible to attain. The patient, whose left lower lid was firmly adherent to the

globe when I first saw him, was injured while working at the Codnor-park Ironworks in this neighbourhood, and as there was no conjunctiva which could be utilised, I transplanted a piece of cuticle (two inches by one inch) from the upper lid of the right eye on to the surface of the left globe, where it may be seen in white outline in the photograph. The upper lid of the left injured eye, which was strongly incurved owing to excoriation of its under surface at the time of the accident, was treated by a method of skin transplantation (shown in the photograph) with pedicle, which I have already illustrated in your pages, and the eye is now quite free, the sight perfect, and the patient naturally very pleased at his unexpected and complete recovery.

With regard to the method described by my friend, Professor Snellen, I may remark that it has been said that "there is nothing new but that which has been forgotten," and it is certain that I devised and frequently practised precisely the same method of skin transplantation with pedicle through a button-hole in the lid at least ten years ago. Indeed, it is upwards of that time since I introduced a patient who had been treated in this way to the notice of the members of the Clinical Society of London, and those of your readers who care to do so will find a report of the case in the Transactions published by that association. It is obvious, however, that, when the vitality of the flap can be preserved (and my experience has demonstrated that there is little or no difficulty in doing so), my more recent method of transplantation of skin *en masse* without pedicle is vastly more convenient and efficacious.

I am, Sirs, your obedient servant,

CHARLES BELL TAYLOR, M.D.,

Nottingham, Dec. 9th, 1889. Surgeon to the Eye Infirmary.

THE LATE PROFESSOR BOYES SMITH, M.D., F.R.C.P.: AN APPEAL.

To the Editors of THE LANCET.

SIRS,—It is seldom that an appeal for help is called for on behalf of the widow of a medical officer of H.M. Indian Army. A painful exception to this rule has now to be brought to the notice of the retired brother-officers of the late Dr. Boyes Smith, of the Bengal Army. They will be surprised and grieved to learn that his widow and little girl, six years of age, have been left, to put it plainly, with £60 a year. Dr. Smith, as a single man, indulged a generous disposition in helping others who were in reduced circumstances, and sustained pecuniary losses in other ways. He married after retirement from the service, and could not by the rules of the Military Pension Fund become a subscriber to that fund on behalf of his wife and child. After a distinguished career in India, both in the military and civil branches of the medical service, Dr. Smith was appointed to the chair of Military Medicine in the Army Medical School, and was cut off by cerebral disease before he could "redeem the time" and make something like an adequate provision for wife and child. The case has been warmly taken up by the *Indian Medical Gazette*, and a subscription list has been opened in its pages. It is hoped that the retired brother-officers of the late Dr. Smith will assist their old friends in India to rescue his widow and child from a condition, considering their former position, little short of want.

Messrs. Grindlay and Co., 55, Parliament-street, S.W., are authorised to receive subscriptions and give acknowledgments.—I am, Sirs, yours faithfully,

W. CAMPBELL MACLEAN, M.D., LL.D.,

Surgeon-General, late Professor of Military Medicine,

December, 1889. Army Medical School.

INFLUENZA.

To the Editors of THE LANCET.

SIRS,—For some months there has been an epidemic of influenza, which has not, however, been confined to this neighbourhood, as I have had patients from places so far apart as Edinburgh, Bournemouth, Southampton, and from the more central parts of London. The symptoms have varied in intensity, the temperature rising in four cases as high as 105°, but falling within times varying from twenty-four to sixty hours to normal or sub-normal. In most of the cases of any severity there has been marked cerebral disturbance, the patients expressing a fear that they were "going mad." In the milder cases there were depression of spirits, anxiety, fear of some calamity, in nearly all nausea or vomiting, and in many violent diarrhœa, sore-throat with extreme muscular weakness, and cardiac pain and depression, and severe aching of the limbs and muscles of the back, about complete the catalogue of symptoms. One of the worst attacks (temperature 105·4°) occurred in a woman three days after parturition, and I should have expected she was going to have puerperal fever; but, having seen so many of these cases, I thought it would prove to be influenza, and she is now convalescent. I have, after considering the symptoms and histories of the various patients, come to the conclusion that it has been caused by the very high temperature which

has prevailed since the fall of the leaf this year, which has caused rapid decay of the soft part of the leaves, which usually takes place slowly in the low temperature of autumn, and has caused an unusual development of the malarial poison which causes ague in temperate climates, and the tropical fevers which attack those living in the influence of tropical forests, like the jungle fever of India and the fever of which Stanley and Livingstone give us such graphic accounts. I have found antipyrin and salicylate of soda the most useful remedies.—I am, Sirs, yours truly,

South Tottenham, Dec. 1889. GEO. B. BEALE.

To the Editors of THE LANCET.

SIRS,—It may be of advantage to some practitioners to know that there is a substance perfectly harmless in use, which has the effect of *immediately* lessening, if not altogether putting an end to, the most pronounced *nasal* symptoms of acute febrile catarrh. One application is generally sufficient for an ordinary "cold in the head." Powdered "periodate crystals" (Weaver's) forcibly blown into the nostrils, or simply dropped in, if the patient is lying flat on his back, and then sniffed up, will cut short an attack, if administered *at the very beginning*. The combination of bismuth, morphia, and gum-powder, in the form of "snuff," once commonly used, is valueless when compared with "periodate," which is, as far as is at present known, the most powerful antiseptic ever used. It can be swallowed in almost any quantity without the least risk.

I am, Sirs, yours truly,

Dec. 11th, 1889. BERNARD O'CONNOR, M.D.

OPERATIVE TREATMENT OF FLAT-FOOT.

To the Editors of THE LANCET.

SIRS,—Mr. Hare pronounces my plan of treatment to be unsuited to *extreme* cases—whatever I may think, I did not say that it was,—but he ignores my objection to osteotomy as not justifiable in his reported case, as to which I had said that I did not regard it as *extreme*. It was so headed in the paper, but I hold that the description proved it to be not even a case of *complete* flat-foot. It is impossible that the great toe can be held flat on the ground, as shown, unless the short muscles of the sole be in active condition. These, in complete flat-foot, are paralysed by pressure. The footprint, too, shows that the cuneiform bone had not fallen, and that the astragalus did not project beyond a line drawn from the inner margin of the heel to that of the metatarso-phalangeal joint. The whole case, as it seems to me, is described with striking fidelity to life although wrongly titled. A lad, of previously "active habits," during ten months was subjected to unduly prolonged standing. He wore "canoe-shaped" boots, whose fault was, not that they were "pliable, giving no support to the arch," but that they distorted the great toe. By this the second was so persistently elevated that it remained so, giving no mark in the footprint. The great toe, unable to move in its natural plane (downwards and inwards), suffered irritation at the metatarsal joint and so ceased to move. The bow-string or tie-rod action of the long flexor was thus lost and the arch gave way. The right foot was most affected because on it the body rested in the stand-at-ease position. The joint mentioned was painful also because (being the anterior pillar of the arch) the weight of the body came plump upon it every time the heel was raised. In healthful activity it is relieved by the action of the long flexor causing it to dance (as I express it in "The Human Foot") on the tight-rope, formed by the tendon. This happens as the heel, every time of raising, is drawn towards the great toe as a fixed point.

The best treatment of such a case as Mr. Hare's is to let the patient, for a time, live with bare feet, moving freely his feet and toes without the weight of the body on them. He should then, always with bare feet, and in the four-square position, move freely to and from tiptoe as much as he can. Had Mr. Hare's patient done this I am confident that he would have recovered functional activity in less time than it took him to recover from the operation. That the bone surfaces had been in ten months so "profoundly altered in shape" as to justify destruction of the most important joint in the tarsus I cannot believe. My first protest against such a proceeding was recorded in THE LANCET of Feb. 9th, 1884, in support of the editorial opinion that Professor Ogston's operation could only rarely be warranted. I ask leave to emphatically repeat it now. The principles which, as I think, should guide the treatment of flat-foot are set out at length in the forthcoming number of the *Edinburgh Medical Journal*.

I am, Sirs, yours faithfully,

Gloucester, Dec. 14th, 1889. T. S. ELLIS.

"MEAN DURATION OF LIFE."

To the Editors of THE LANCET.

SIRS,—The subject matter of actuaries' inquiries is the present value of sums of money payable at death or at intervals during life, and for this purpose the figures of the Life Table (the sum of which shows the "mean duration of life") are combined by them with the figures of a Discount Table previously to summation; and further, the Life Table generally used by actuaries commences at ten years of age, and thus gives no information as to mean duration of life. These are sufficient reasons why actuaries should not affect the expression "mean duration of life." Parkes's formula, quoted by Dr. Lyon, aims at ascertaining the mean duration of life by a correction applied to the reciprocal of the death-rate; whereas the class of formulas to which I alluded in my previous letter aim at ascertaining the reciprocal of the mean duration of life by a correction applied to the death-rate itself. I think Dr. Lyon will find that the following formula fits Dr. Corfield's figures pretty closely:—

Death-rate $\times$ ·5634, *plus* birth-rate $\times$ (1 − ·5634) = c,

1000 ÷ c is taken as the "mean duration of life."

As to the reason why the particular constant ·5634 has been chosen, or the grounds on which the result should be taken as an approximation to the mean duration of life, I can make no suggestion; I merely indicate the method which has apparently been used. Dr. Lyon's assertion, that "the expression 'mean duration of life' applied to any particular year is scientifically meaningless and misleading to the public," is somewhat sweeping. It must be admitted that social orators have too often misled the public by a misuse of the expression; but, for all that, it has a definite scientific meaning, and, moreover, the mean duration of life is the best measure of health conditions that has yet been devised in the form of a single number; provided only that such a period is chosen that the years of life shall be sufficient to give fairly trustworthy death-rates at the various ages. The difficulty in the way of its general use is the labour of calculating it.

I am unable to follow Dr. Lyon's objection that this number is "essentially yearless, and quite unfit to be employed as a test of health in a particular year." On the contrary, I should say that the mean duration of life, deduced from the rates of mortality in any year, belongs essentially to that year, and is simply and only fit to measure the state of health in that year. If Dr. Lyon's objection applies only to the term itself, an explanatory form, such as follows, may possibly recommend itself to him:—The mean duration of life which *would be attained* if the rates of age-mortality observed in the year remained constant. Surely it cannot be disputed that this is a fair measure of the combined effect of those rates.

I am, Sirs, yours faithfully,

Dec. 14th, 1889. A. C. WATERS.

THE PROPOSED "PUBLIC MEDICAL SERVICE."

To the Editors of THE LANCET.

SIRS,—I am sorry that my reply last week to Dr. F. Taylor and Dr. Hugh Woods was too long for publication, and was afraid it might be so when I wrote it.

On the 12th inst. a meeting of the Metropolitan Counties Branch of the British Medical Association was held in Jermyn-street for the purpose of discussing Dr. Rentoul's scheme. Dr. Ord presided, and Mr. John Page Hentsch, a non-member of the Association, after addressing the meeting, requested a member to propose for him his resolution: "That this meeting considers Dr. Rentoul's scheme to be impracticable, and that, even if practicable, it would be disadvantageous to the great bulk of the general practitioners." Mr. Campbell Boyd proposed and Dr. Richard Paramore seconded this resolution, and it was carried by an overwhelming majority. I am informed upon good authority that, although so many branches of the Association have rejected Dr. Rentoul's scheme, a certain number of the officials of the Association, some of whom are on the Council

of the Metropolitan Provident Medical Aid Association, will not relax in their efforts to force Dr. Rentoul's scheme upon the general practitioners, and would therefore suggest to these gentlemen the desirability of their acting in closer concert than hitherto, for the purpose of giving the scheme an organised opposition.

I am, Sirs, faithfully yours,

Stockwell-road, S.W., Dec. 16th, 1889. R. H. S. CARPENTER.

PRIMARY TUBERCLE OF THE KIDNEY.

To the Editors of THE LANCET.

SIRS,—Mr. J. Knowsley Thornton, in his lectures delivered before the Harveian Society, draws attention to the rarity with which tubercle occurs primarily in one kidney. May I ask you to kindly insert in THE LANCET the following brief notes of a case which came under my notice when resident medical officer at the Bootle Borough Hospital?

In last September, a mother brought her boy, aged about three years, to the out-patient department, complaining that he was unable to pass his urine, and that he appeared to suffer pain in the lower part of the abdomen. No definite history being obtained from the mother, I examined the boy for stone in the bladder, but failed to find any signs of one. About three ounces of normal urine were drawn off. A mild purge was given, and the mother was told to bring the boy again if he were no better. She came two days later, when the child was evidently dying, comatose, and with contracted pupils. The bladder being distended, a catheter was passed, and about ten ounces of urine, containing blood, were drawn off. A hot bath was given, but the child died in a few minutes. At the post-mortem examination the cortex and the medulla of the upper third of the right kidney were found to be infiltrated with miliary tubercles, some of which were becoming caseous. No tubercular matter was found anywhere else in the body, although carefully looked for. The bladder was quite healthy, and did not contain a stone.

I am, Sirs, yours obediently,

R. ATWOOD BEAVER,
Assistant Medical Officer, Lancaster County Asylum, Rainhill.

Dec. 17th, 1889.

SULPHUROUS MEDICATION IN INFLUENZA.

To the Editors of THE LANCET.

SIRS,—Doubtless many of your readers remember the useful paper of Mr. Dewar of Kirkcaldy upon "Sulphurous Medication" in ordinary colds. Let me give my personal testimony of its value in influenza. Some years ago, when I had an important engagement for 6.30 P.M., I came home at 5 o'clock to dress. My eyes were then streaming, and I sneezed so violently and so persistently that it was almost impossible to do anything *but* sneeze. By spraying sulphurous acid into my nose and about the room I was able to keep my appointment with scarcely any inconvenience. Should influenza come upon us, would it not be materially prevented from spreading through a family by the use of the sulphurous spray, which is so destructive to infectious germs? Slightly diluted with water, and with the addition of a little eau de Cologne, it is very agreeable in any sick room. I am, Sirs, yours truly,

Finchley-road, Dec. 17th, 1889. R. H. MILSON, M.D.

DEATH UNDER CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 14th is an annotation under the above title, in which you say: "When half-way through the operation the patient showed signs of dangerous depression, the pupils became widely dilated, and the respiration and heart's action ceased." As the anæsthetist responsible for the case, allow me to say that there were absolutely *no* "signs of dangerous depression," and that the pupils were not dilated prior to the sudden cessation of breathing. The fact is, everything seemed to be going as satisfactorily as possible without the least sign of either cardiac or respiratory depression, until a deep sighing inspiration and expiration occurred, which were immediately followed by sudden cessation of breathing, extreme pallor of countenance, and *then* dilatation of pupil. The pulse, which for obvious reasons was not noted at the moment of cessation of breathing, was taken immediately before, and nothing abnormal detected. Had "signs of dangerous depression" occurred prior to cessation of breathing, every care would have been taken to combat them.

Thanking you in anticipation for allowing me to correct an error, which was, I am sure, quite unintentional,

I am, Sirs, yours faithfully,

HENRY T. RUTHERFOORD.

Queen Anne-street, Cavendish-square, W., Dec. 16th, 1889.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Actions under the Apothecaries Act.

MENTION was made a short time ago of successful actions in the Police Court against two notorious illegal practitioners; these two defendants on the 17th inst. had paid into court £87 8*s.* 8*d.*, the amount of the penalties claimed against them by the Apothecaries' Society at the County Court. A number of other cases were down for hearing also, but as some of the witnesses were engaged at the Assizes they were adjourned until Jan. 13th. Another case of some importance was also heard under the same Act, where the defendant, with no legal qualification, was held up as an example of a class of men who open respectable-looking houses, place their names upon a lamp, set up speaking-tubes, and give every appearance outwardly of being qualified men. The poor were thereby deceived, and properly qualified men also deterred from obtaining practice. It was pointed out, also, that inquests often became necessary from the inability to get a certificate of death from an unqualified man, and expense was thereby thrown upon the ratepayers. The full penalty of £20 for one instance was inflicted upon the defendant, and an order for payment forthwith was granted. The effect of these prosecutions will be wholesome and salutary, and will confer a benefit upon the poor as well as on the profession.

Notification of Infectious Diseases.

At a meeting of the City Council held on the 17th inst., a resolution was passed, after some discussion, to adopt the Infectious Diseases Act 1889 (Notification), as and from January 20th, 1890. An amendment was accepted with it as follows: "And that the said committee be requested to confer with the medical profession as to the precautions which should be observed by doctors visiting from infectious or non-infectious cases, and to report." The Chairman of the Health Committee pointed out that during the recent scarlet fever epidemic they had to increase their hospital accommodation from 80 to 478—the number of patients under treatment at one time. There was a gradual decrease of the epidemic, there being at this time 445 cases in the hospital. With the additional powers given by this Act, it is hoped that the committee will be able to exercise their strength in combating this widespread and baneful disease.

Heroism in Humble Life.

A distressing incident, involving the lives of two men, lately occurred during the repairs to one of the large gas-holders of the corporation. The necessary alterations in so dangerous a place were undertaken by a firm at Leeds, who employed experienced workmen. Two men engaged for a short time became unconscious from the effects of the gas and emanations from foul water in the holder. Their rescue was nobly risked by two others, one of whom and one of those previously at work lost their lives. Wide sympathy is felt for the victims and their families.

Birmingham, Dec. 18th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle-on-Tyne.

AT a meeting of the Tyne Port Sanitary Authority, held last week, it was stated that no less than 14,000 visits to inspect their sanitary condition had been made to vessels in the river during the past year. This of course involved a large expense, but it was believed to have been well spent. The work done in October and November included the inspection of 1269 British steamers, 590 British sailing

vessels, 362 foreign steamers, and 348 foreign sailing vessels. On the principle that prevention is better than cure, much good was done in inspecting the ships and insisting on necessary alterations, which were all complied with, with the exception of six vessels, which went away before they could be revisited.

University of Durham.

At the Convocation of the University of Durham, held last week, the papers report that the restrictions as to the admittance of undergraduates having been removed, they mustered in strong force, and with the outside flank of the medical men from Newcastle succeeded by their enthusiasm in restoring a good deal of the humour and good nature which has for many years been introduced to academic meetings of this kind.

Death of Dr. E. P. Mead of Whitby.

I regret to notice the death on the 7th inst., of Dr. E. P. Mead, at his residence in Whitby, Yorkshire, where he was a well-known and active practitioner for about thirty-five years. Dr. Mead, who was a native of Whitby, studied and graduated in Edinburgh, and, commencing practice in Whitby at a very opportune period, soon attained a large measure of success, which amidst many changes he never lost. His manners were attractive to patients, while he was extremely kind and considerate. He never tried to do more work than he was able to do well—that is, he never burthened himself with public or professional appointments, and thus no doubt had often more time to do himself and his patients justice. Dr. Mead, whose age was fifty-nine, began to fail in health about twelve years ago. After some rest and continental travel he returned home much improved, though afterwards he began to suffer from asthma and the painful passage of gall-stones. On Wednesday, the 4th, he was seized with one of these attacks, which returned on the following day and on the Friday, producing syncope, when death soon followed. He was attended by his son, who is in the profession at Whitby, and by Dr. Stewart and Mr. Stonehouse. Dr. Mead has left a large family. Another son, Dr. Rivis Mead, is practising in Australia; and a few months ago I recorded the distressing death of Dr. Mead's second son, a fine young man, who was mate on board a Tyne steamer, but who, in the delirium of fever, escaped from his attendants, and leaping overboard was drowned. Dr. Mead's funeral was largely attended, as he was a favourite with all classes; indeed, the town might be said on that day to be in mourning.

Darlington.

A dentist here met with a rather curious accident the other day. He was asked to go to the infirmary to reduce a dislocated jaw, but in the reduction, the teeth snapping on his fingers, he received some very unpleasant wounds, followed by blood poisoning. Fortunately he was insured in an accident company, who met the claim.

Newcastle-on-Tyne, Dec. 17th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

The Universities Commission.

IN anticipation of the meeting of the Universities Commissioners in January next, there seems to be a very general flutter and activity in the "cots" of those who think that they will be in any way affected by the decisions. One hears of very little else just now; it is the sole topic of conversation in medical teaching circles, and all the arrangements and appointments in the colleges and in the schools are made with a view to what has to be brought up before the Commission. The Colleges of Surgeons and Physicians have both appointed committees and sub-committees, whose duty it is to prepare evidence, examine past legislation, and recommend what action shall be taken by the Colleges. The University authorities have also been asked, or will be asked, to prepare statements and offer suggestions or evidence for the consideration of the Commission, so that all these bodies will be adequately represented. The lecturers in the Extra-mural Medical School are also conferring amongst themselves, and, from what has leaked out as to the results of their deliberations, there seems to be a strong leaning on the part of the majority of the extra-mural teachers towards free trade in both teaching and examining. It is probable that some of these matters will be spoken of at the College of Physicians' annual dinner, which takes place on Thursday, so that if any of the Fellows of the London College are present they may hear in private what is never reported to the public. Those first in the field with any public reports of their proceedings are the students' Representative Councils of Edinburgh and Glasgow. The Edinburgh committee report that they are prepared to advise that the following, amongst other points, be raised and pressed before the Commission: that a Faculty of Science should be created in Edinburgh University; that the course in medicine extend over a curriculum of five years; that there should be a short preliminary course in medicine and surgery before the courses usually taken; that there should be short compulsory courses on diseases of the eye and ear, for which the fee should not be more than one guinea; that there should be a matriculation examination for all students entering the University with a view to graduation, and that at least four compulsory subjects in that examination be passed at one time. If the other bodies go to work in the same business-like fashion as the Students' Representative Council has done, it may be anticipated that the work of the Commissioners will be very much less arduous than they could at one time hope to be the case. There are many other matters that the students might take up, but they prefer to rest content with indicating the general lines on which they think that reform should take place.

The Royal Asylum at Morningside.

It is a matter for some congratulation that the Craiglockhart Hills question has at length been satisfactorily and amicably settled. It was pointed out in the columns of THE LANCET at the early part of this year that it would be a great boon to the asylum and its patients, and very little, if any, loss to the community, if certain lands were taken in exchange for part of Easter Craiglockhart Hill. This opinion was maintained and endorsed by Professor Sir Douglas Maclagan, Dr. Sibbald, and others. It has now been decided by the Parochial Board authorities to hand over ten acres and a quarter of the Easter Hill, "which from its contour and situation is of no great value for recreative purposes," and to take in return from the asylum trustees nine acres and a quarter of valuable arable land, which will in all probability become more and more valuable as the city boundaries extend. The splendid asylum buildings, of which a short account appeared at the time the plans were submitted, can now be completed.

The Royal Society.

At the meeting of the Royal Society held last night, Sir Arthur Mitchell, M.D., presiding, two papers of considerable medical interest were read: the first, by Dr. Ashdown, "On the presence of certain Substances in the Urine that reduce Oxide of Copper in the presence of an Alkali"; the second, by Dr. G. E. Cartwright Wood, "On Enzyme Action in the Lower Organisms."

The Health of the City.

In presenting the monthly reports of the medical officer of health of the city, Baillie Dr. Russell called attention to the fact that the death-rate for the past month was slightly higher than that for November of last year, and than the average for the last five years. This was accounted for chiefly by an outbreak of measles in the Old Town, and was confined mainly to children under five years of age. There were at present 204 patients in the City Hospital.

New Entries in the University of Edinburgh.

Up to Dec. 2nd 340 first-year medical students had entered in the University of Edinburgh, of whom 140 began their studies last summer session.

Edinburgh, Dec. 17th.

GLASGOW.

Social Problems in Glasgow: Housing of the Poor.

On Nov. 6th last, Dr. J. B. Russell, on retiring from the Presidentship of the Glasgow Philosophical Society, gave another of those addresses which have perhaps done more than anything else to stir up in the people of this city a sense of their responsibility with regard to the wretched condition of the very poor in our midst. There are few who have access to such sources of accurate statistical

information as are open to Dr. Russell, and fewer still are they who have the ability to interpret such masses of figures in a way which will appeal with any force to the conscience or rouse the sympathies of the community. It is not easy to epitomise such an address, so full is it of facts, and throughout of such interest. It is "an object lesson in sanitation and social economics." Premising that the notorious District 14 of Glasgow is not now worse than it has long been—that, in fact, it has been "the heartbreak of successive generations of Glasgow philanthropists,"—Dr. Russell gives a number of very startling facts regarding it for the year 1888. It embraces an area of thirty-five acres, in which there are 1308 houses, inhabited by 7150 persons. This is ·57 per cent. of the total area, inhabited by 1·29 per cent. of the total population of the city. Contrasting this with the healthiest district of Glasgow, District 17, we find that the latter embraces 10·24 per cent. of the area and only 5·62 per cent. of the population. Fifty-one per cent. of the houses are "ticketed," and are thus subject to night inspection for the prevention of overcrowding. In 1888 there were 232 deaths and 218 births, so that this district produced 14 fewer lives than it consumed. Reduced to rates per 1000 of the population, its birth-rate was 30·49, its death-rate 32·45; of children under one year the death-rate was 239 per 1000. As regards illegitimacy, 25 per cent. of the children were born out of wedlock; or, to put it otherwise, 1·29 per cent. of the population of the city contributes 3·7 per cent. of the total illegitimacy of the city. The details of the mortality are interesting:—Zymotic diseases (including diarrhœa), 4·76 per 1000; nervous diseases and diseases of nutrition in children, 3·36; acute diseases of the lungs and consumption, 14·68; miscellaneous unclassified diseases, 9·65—total, 32·45. It is thus obvious that infectious diseases and diseases of the lungs are the two scourges of District 14. The death-rate here from diseases of the lungs alone is greater than the death-rate from all causes in District 17. In District 14, 41 per 1000 of the children born died because they were born prematurely—a fact which furnishes a good gauge of the deadly influences to which children are exposed both after birth and during intra-uterine life; 18·5 per cent. of all the deaths in District 14 were uncertified. In 15·5 per cent. of the fatal cases it was alleged to the Registrar that there had been absolutely no medical attendance during the last illness. Forty per cent. of those who died were enrolled in friendly societies; in the Springburn district, a good working-class locality, 70 per cent. are so enrolled. District 14 is therefore not distinguished for providence. Of the 232 deaths, 18·5 per cent. were uncertified, 29·7 per cent. died in public institutions, and 51·8 per cent. at home. Of those who died in public institutions, the cost of treatment of 25·4 per cent. fell on the public rates; that of the remainder, 4·3 per cent. of the whole, fell on the various charitable institutions. Basing his opinion on these and other facts, Dr. Russell thinks that "the probability is that very little medical aid is obtained in this district except what the public pay for or the profession bestow for nothing." Of those who died in this district, the cost of interment was borne by the ratepayers in 37 per cent. of the cases. Of the children born, 55 per cent. began their lives either at the cost of charity or of the rates; 50 per cent. of the children born were vaccinated gratuitously. Such a district must inevitably make enormous demands upon the services of the sanitary department; in 1888 no fewer than 16,529 separate visitations and inspections were made in it, and behind all this there was a proportionate amount of office work and money expenditure. With regard to the work of the Police Department in District 14, this district is still "the Alsatia of Glasgow"; it furnishes the greater part of the work of the Central Police Court. The privy system in the district is abominable, and such as to encourage filthy habits. Though there are 1308 houses and 7150 people, there are only 105 w.c.'s in the whole district. The last bit of information given by Dr. Russell is curious and very instructive—namely, a return of the rental of the licensed premises in District 14, as compared with the rental of premises where food alone is sold: the former amounts to £5167 2*s.*, the latter to £4944 12*s.* It is to be noted, as making this statement still more striking, that the rental of the Public Fish Market (£1000), which supplies the whole city and surrounding parts, is thrown in with the rental of houses where food but no "drink" is sold. District 14 thus spends as much in the luxury of drink as in necessary food. "I think, as honest business men, apart from all views as to total abstinence or the association of crime, immorality, and disease with excess in the use of alcohol, you will agree with me in thinking that people who do not pay their rates, who throw themselves on the legal and charitable resources of the public in their sickness, their birth, death, and burial, simply take from the pockets of the public every sixpence which they spend on drink." Dr. Russell mentions the first step necessary to remedy the evil—to get rid of the unwholesome tenements. He does not think it necessary to have such places for such people; no improvement need be looked for while the houses are allowed to remain as they are. In the main, it is not want of money that keeps people in such houses; they pay in small sums what amounts in a year to an extravagant rent for such accommodation. Dr. Russell closes by commending the work of Miss Octavia Hill, who seems to have solved, in London, some of the problems connected with the housing of the poor; and by advocating the adoption in Glasgow of certain recommendations carried out in Edinburgh with reference to St. Giles's Ward there.—The subject of the better housing of the poor was under consideration again last week in the Philosophical Society, when an excellent paper was read by Mr. William Smart, M.A. He described the state of matters in Glasgow, fully enough detailed above, and concluded by giving an account of various philanthropic companies which are now providing in London habitable houses on remunerative commercial principles.—The question of the "housing of the poor" has been taken up also by the Church of Scotland. The first public meeting of the Commission appointed by the Presbytery of Glasgow was held a few days ago, when Dr. J. B. Russell was the only witness examined. He showed the relation which exists between house accommodation and death-rate in the eight principal towns in Scotland. It may be mentioned that the scope of this Commission is to inquire into the housing, the social surroundings, and the moral condition of the poor, and to suggest remedial measures if these seem urgently required. The term "poor" is used to designate those whose wages run from 3*s.* to 20*s.* per week.

Glasgow, Dec. 17th.

ABERDEEN.

The Medico-Chirurgical Society.

One hundred years ago, on Dec. 14th, 1789, the first meeting of the Aberdeen Medico-Chirurgical Society was held; and on Saturday, the 14th inst., the present members celebrated the centenary by holding a dinner in their hall, 29, King-street. Dr. Smith-Shand, the President, was in the chair, and the croupiers were Dr. Garden, the Vice-president, and Dr. Edmond, the Secretary of the Society. Among the guests were Dr. Tyler, the Gifford Lecturer; Dr. Macalister, the Thomson Lecturer; Principal Geddes; Lord-Provost Stewart; and Mr. Peter Esslemont, M.P. Fifty years ago the jubilee of the Society was celebrated, and of the members then present three are still living—viz., Mr. Jamieson of the Aberdeen Lunatic Asylum, Dr. James Will, and Dr. Francis Edmond, the Society's legal adviser. After the loyal toasts, the President proposed "The Aberdeen Medico-Chirurgical Society," and in his speech gave an interesting account of the history and progress of the Society. The first secretary, he said, was a certain James McGrigor, who hailed from Strathspey. He afterwards became Sir James McGrigor, and was ultimately appointed Director-General of the Army Medical Department. The first treasurer was a George Kerr, who afterwards was a medical practitioner in the city. The portraits of these gentlemen hang on the walls of the hall where the Society dined. The Society at present consists of fifty-one members; its funds are divided into the ordinary fund, the buildings fund, the library fund, and the widows' fund; and they all show balances on the right side. To the widows' fund the late Dr. Robert Beveridge left a handsome legacy; and by another legacy the Society has at its disposal a medical bursary of £20. Mr. Jamieson (Peterhead) proposed "The President of the Medico-Chirurgical Society." Dr. Garden proposed "The Founders of our Society," and in doing so gave several interesting and amusing extracts from the old minute book of the Society. At first the Society was composed entirely of medical students. They met once a week, at first at their own residences, but this being found inconvenient, a class-room in Marischal College was placed at their disposal. Each meeting had its own president, and each member was obliged to take the presidentship in turn. Regular attendance at the meetings was enforced by fines.

A record was kept of the subjects discussed or, "as it is quaintly phrased in the minute book, 'agitated.'" The following are some of them: "How far is a knowledge of Mathematics consistent with, and useful to, Medicine?" "Is an accurate knowledge of Anatomy absolutely necessary to Medicine?" "Are Hysteria and Hypochondriasis the same thing?" Convulsions or inward fits were thought to be due to redundant bile and superabundance of acidity in the stomach. The Society, composed as it was at that time of students, seems to have been the working part of the Medical School, and we find that the members met for "Lessons in Anatomy," when one of their number had to give his fellows an anatomical demonstration. Dr. Garden said they evidently believed in the maxim that "all work and no play makes Jack a dull boy," for the minute of one meeting at which office-bearers had been appointed ends thus: "We then proceeded to the tavern, where we spent the greater part of the meeting in mirth and jollity." In little more than a year after the formation of the Society qualified medical practitioners were admitted as extraordinary members, and from that date up to 1863 there were junior members or students, and senior members or practitioners. Since 1863, however, there had been no student members. Dr. Macalister proposed "The University of Aberdeen," which was responded to by Principal Geddes. On rising to reply to the toast of "The Aberdeen Medical School," proposed by Sheriff Dove Wilson, Dr. Struthers received quite an ovation. Other toasts followed, and in every respect the centenary dinner was a great success, and evidently enjoyed by everyone.

Aberdeen, Dec. 18th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons in Ireland.

AT a meeting of the Council held last week, the honorary Fellowship of the College was unanimously conferred upon Mr. Thomas Heazle Parke, A.M.D., a Licentiate of the College, in recognition of his distinguished services in the expedition of Stanley across Africa. At the same meeting, the President, Mr. Meldon, was congratulated by the Council on having been appointed a deputy lieutenant for the city of Dublin.

Accident to Sir Charles Cameron, M.D.

I regret to state that an unfortunate accident on Friday last has incapacitated the genial and well-known medical officer of health for Dublin. It appears that shortly after leaving his house on Friday evening he tripped over a heap of stones and fell, breaking three of his ribs on the left side.

The late Mr. Jameson Dwyer.

The following resolution was unanimously adopted at a recent meeting of the Cork Town Council: "That we, the Corporation of Cork, tender to the family of Dr. Dwyer, late resident medical superintendent of the Cork District Lunatic Asylum, our sincere sympathy on his demise, and express our great regret at the loss they have sustained by the death of such an amiable gentleman and fond father."

City of Dublin Hospital.

Dr. W. J. Smyly, having been appointed Master of the Rotunda Lying-in Hospital, has resigned his position on the staff as gynæcologist to this institution. The governors have passed a resolution expressing their sense of the value of his services and their appreciation of his skill and attention whilst holding the office of gynæcologist.

The Lord-Lieutenant has appointed Dr. Oscar Woods, resident medical superintendent of Killarney Lunatic Asylum, to be resident medical superintendent of the Cork District Lunatic Asylum, in the vacancy caused by the death of Mr. Dwyer. The Cork Asylum is one of the best-paid asylums in Ireland, and the post was the object of much competition. Mr. L. T. Griffin, visiting physician to the Killarney Asylum, succeeds Dr. Woods as resident medical superintendent.

The Public Health Committee of the Corporation of Cork have strongly recommended the adoption of the provisions of the Infectious Diseases Notification Act for that city.

The bazaar lately held in the Town Hall, Kingstown, for the Monkstown Hospital, has realised a sum of £464. This amount will be placed to the credit of the building fund.

Dublin, Dec. 17th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Prophylaxis of Tuberculosis.

WITH reference to the report of Professor Villemin on the prophylaxis of tuberculosis, Professor Hardy, who opened the discussion at a recent meeting of the Academy of Medicine, summed up his opinion as follows: As regards the measures by the aid of which one might hope to restrain the development of phthisis, the first place belongs to general hygiene, which aims at fortifying the offspring of those affected with tuberculosis and other debilitated subjects. M. Hardy protested against the publication of details relative to the contagion of tuberculosis, and in the name of humanity he would not have tuberculous subjects looked upon as pariahs or outcasts who should not be approached. If the counsels of certain ultra-contagionists be followed, it would be feared that the patients would be abandoned, or at least that they would not receive the physical and moral care which they require. It is particularly on account of these latter considerations that M. Hardy refused his vote in favour of the propositions of the Commission, but only as far as concerns their being addressed to the public. M. Trasbot, professor of clinical medicine at the veterinary school at Alfort, declared that he could only consider one side of the question. He stated that the bovine origin of tuberculosis is not proved in an irrefutable manner, and, in any case, it is far from being so frequent as is generally supposed. There does not exist any example of the experimental transmission of tuberculosis from the ox to man. Even clinically this has not been demonstrated, although it is affirmed without reserve that bovine tuberculosis is transmitted to man by meat, blood, and milk, and this on the grounds of experiments performed with divers animals. If, moreover, this transmission is effected, it is infinitely less frequent than is thought, and can have no share whatever in the incessant augmentation of the malady in man. That which proves this last proposition is that whereas tuberculosis is becoming more and more common in the human species, it is being diminished amongst cattle in considerable proportions. In 1888, according to the report of M. Alexandre, Chief of the Sanitary Service of the Seine, of 24,724 animals from different parts, which appeared in bad condition, 125 only were found, at the necropsy, to be tuberculous. This is a very small proportion relatively to the number of animals annually killed in Paris. It is therefore impossible to attribute the numerous cases of human tuberculosis to infection produced by meat. The hypothesis of contamination by blood is not worthy of discussion. As regards that by milk, it must be very limited, if it does exist, as tuberculosis is becoming excessively rare in the milch cows kept in Paris and its environs. In presence of the possible danger resulting from the consumption of tuberculous meat, the authorities have prohibited the sale of such meat; this of course is a rational measure. The Congress on tuberculosis, by exaggerating the fear of contagion by tuberculous meat and milk, has spread a kind of panic among the public. To a remark made by M. Nocard, M. Trasbot observed that he never had the idea of disputing the identity of bovine and human tuberculosis, but that there was no certainty of the transmission of tuberculosis from the ox to man through the ingestion of the flesh of this animal. Professor Cornil, who is a confirmed contagionist, approves the instructions of the Congress, which, he thought, should be widely published. According to this authority, there is no doubt of the contagiousness of this malady, and in support of his thesis he cited that the Fuegians did not know what phthisis was before the installation of the English mission. The wife of the pastor, who was phthisical, had collected in a school a certain number of children. These young Fuegians were lodged, clothed, and placed under apparently better hygienic conditions than those who still lived in a savage state. Notwithstanding this, a terrible mortality occurred among the former. There was a veritable epidemic of acute phthisis.

Lunatics at Liberty.

In resuming his clinical lectures at the Sainte Anne Asylum, Professor Ball delivered a very interesting lecture on Lunatics at Liberty, a subject he had selected *à propos* of the following remarkable case. A very intelligent man,

occupying a respectable position in the world, married rather late in life, and without knowing the antecedents of his intended wife, whose father had for a long time been insane. This woman was before long seized with the delusion that she was the object of the animosity of her neighbours. The husband at first endeavoured to show his wife her error, but he ended by finding himself drawn into the same delusion. This, the learned Professor observed, was one of those curious cases of dual insanity, or *folie à deux*, which are far from being rare. This man one day went into the street with a revolver in his hand, and, imagining that his honour was impeached, he sought in vain the other lodgers in the house, who, as he supposed, wished to seek a quarrel with him. Of course nobody regarded his challenge. One day he heard a voice provoking him to a duel, and, satisfied that he had found an antagonist, he went at four o'clock in the morning to the place appointed for the combat, outside the fortifications, but found no adversary. Disappointed, he went to the Commissary of Police of his quarter to lodge a complaint. The Commissary advised him in a friendly manner to go and see the Procureur of the Republic, to whom he was conducted. This judicial functionary happened to be a physician, by whom the patient was sent to the Sainte Anne Asylum, where he has been for four years. The man is still in the asylum, but he is stated to be perfectly cured.

La Grippe.

The epidemic of influenza, or *la grippe*, which has been raging in Paris for the last fortnight, is on the decline. No deaths from the disease have been recorded.

Paris, Dec. 17th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Richard von Volkmann.

BEFORE beginning his lecture in the Surgical Hospital here on the day after Volkmann's death, Professor von Bergmann addressed his hearers as follows: "About twenty-five years have elapsed since Volkmann began his academic career. He was one of the first surgeons who "domesticated" Lister's antiseptic method in Germany, and the brilliant successes which he gained by it went far to confirm it and to gain its acceptance. Another part of his work was the study of cancerous tumours, and it occupied him till the last days of his life. His great excellence as a clinical teacher and as a military surgeon during the last campaigns is sufficiently known. But it is not only in his capacity as a scientist and an operator, but also as a man, that we owe him our admiration, for he was in every respect so true a character, so sincere a man, ever mindful of his great and serious duties. He was a poet too, and a fresh breeze blows through his 'Songs from the Vale of the Sarle'; but especially his widely known and popular 'Reveries at French Firesides' are a proof of his poetic endowment, and a memorial of that time of the great war of 1870-71 which was so glorious for Germany. In him a man has departed who succeeded in gaining a name such as few possess, and who in full measure deserves that his memory be warmly cherished by men of science and by the nation." Dr. von Coler, Physician-General to the Prussian Army, has published the following tribute to Volkmann's memory: "Professor Richard von Volkmann, Surgeon-General *à la suite* of the ambulance corps, head of the surgical hospital of the University of Halle, Privy Councillor in Medical Affairs, and knight of high orders, died on the 28th inst. at Jena. The officers of the Ambulance Corps deeply and sorrowfully mourn the departure of one of its most eminent members, a master of German surgery and of the treatment of the sick and wounded in war. As in the campaigns of 1866 and 1870–71, inspired by high patriotism and genuinely philanthropic feeling, friendly to all good and noble things, he devoted his great knowledge and skill to the service of the army, and was a helper and life-saver to thousands. He remained also after the wars as the honoured deliverer of advanced courses of lectures for military surgeons, and as an active adviser, and an indefatigable promoter of the interests of the medical and surgical department of the army. The gratitude we owe the deceased lives on with his memory, which will for long be kept fresh by the rich fruits of his blessed work." On his death-bed Volkmann contributed 150 marks to the fund for the erection of a monument of the Emperor Frederick on the battle-field of Wörth. In the letter which accompanied the gift he wrote with a trembling hand: "I think, too, that the only suitable place for the chief national monument of the Emperor Frederick is Wörth." He added that, if his health permitted, he would do all that in him lay for the realisation of the scheme. The streets through which his funeral passed in Halle were crowded with spectators.

Leprosy.

Government Counsellor Dr. Wernich draws attention to the circumstance that cases of leprosy have recently been observed very frequently in France and Russia. Considering the large traffic between Germany and those countries, this fact is of serious importance to the Germans, for there is no longer any doubt that leprosy is contagious. This fact was rendered probable by Hansen's discovery that leprosy is caused by a bacillus nearly related to the tubercle bacillus, and further by an experiment which Dr. Arning of Hamburg, who studied leprosy in the Sandwich Islands, carried out there. He wished to find out whether leprosy could be produced in a human being by inoculation. Experiments on animals had either failed or yielded ambiguous results. Dr. Arning, supported by the authorities, induced a criminal condemned to death to let himself be inoculated with leprous tissue, and the symptoms of leprosy became distinctly visible in him within a few months. The results of recent investigations are directly opposed to the opinions which formerly prevailed as to the manner in which leprosy spreads. Heredity used to be regarded as the main factor. Statistical inquiries, however, have shown that this is not the case. In Europe leprosy is still endemic in Finland, the Baltic provinces of Russia, some parts of Sweden, and especially in Norway, and those who wished to study it used to go thither. Now, however, the disease can be very conveniently studied in Paris and St. Petersburg.

The Influenza Epidemic in Germany.

Yesterday's telegrams from various German districts give some idea of the dimensions which the influenza epidemic has attained. In Dantzic so many teachers and schoolboys are ill that only some of the usual lessons are being given in the High School, and several other schools are closed altogether. Work is partially paralysed, too, in the offices, especially in printing offices. In Hamburg several schools have had to be closed. At Wandsbeck, near Hamburg, 3000 cases are announced, and three elementary schools are closed. Professor Leyden, of the Charité, spoke to his students on this subject the other day. He emphasised that influenza is a disease of specific character, by no means deserving the disregard with which it is frequently treated. It must not be placed in the same category as common colds. Its special character was indicated by the suddenness and severity of all its symptoms, especially fever, and above all by its pandemic character. He declared that more than a third of the population were ill at present. He also pointed out that this complaint was very often accompanied by deep mental depression, the patient feeling intensely ill all over in a much higher degree than was usual in common colds. For this reason the treatment of the mind and feelings of the patient deserved the special attention of the physician. He discussed the points of resemblance between influenza and the dengue fever, which has been raging of late in Constantinople, Smyrna, and other Turkish cities, and favoured the theory that the former has sprung from the latter, which generally spread from east to west and from south to north. The *Berliner Klinische Wochenschrift* (Berlin Clinical Weekly) writes: "It can no longer be denied that Berlin too has been attacked by the epidemic, though it is difficult to ascertain how widely it has spread, for most of the cases which go by the name of influenza among the laity are really merely imaginary. Anyone who should reckon every slight attack of bronchial catarrh with fever, such as the season brings with it, all colds in the head and headaches, under this rubric, would have to state a very high percentage of cases in Berlin too. Whoever, on the other hand, demands a stricter diagnosis, especially whoever requires a distinct appearance of the nervous symptoms, along with the varying and complex objective symptoms, with the partly catarrhal, partly gastric, disturbances, will be more cautious with his statistics. All trustworthy observers lay special stress on the fact that there is a striking and charac-

teristic disproportion between the objective symptoms, including even the often high but very transient fever, and the subjective feeling of illness, the weariness and depression. Real cases, however, have also been observed—in the Charité for instance—with absolute certainty, and it has been pointed out that the complaints which are notoriously wont to accompany influenzá epidemics—viz., catarrhal and croupous pneumonias—have unmistakably increased. In these cases antipyrin or antifebrin seem to have been universally prescribed, with the effect that the subjective state very rapidly improved." A committee of eminent men, including several of the most highly reputed physicians, has been formed for the purpose of tabulating statistics of the epidemic in Berlin, and the assistance of the Statistics Office of the city has been secured.

Professor Rudolf Virchow.

On the 11th inst., the Berlin Anthropological Society presented its President, Professor Rudolf Virchow, with a bronze medallion portrait of himself by Anton Scharff, in remembrance of the foundation of the Society twenty years ago. It held its first public sitting on Dec. 11th, 1869, with Virchow in the chair, and he has been the soul of it ever since.

Berlin, Dec. 17th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Influenza Epidemic.

THE number of cases of influenza rapidly increased last week. Most of the lectures and courses at the hospital had to be suspended on account of the illness of the respective lecturers. The hospital wards, which are filled with patients every year at this season, are now so overcrowded that many patients have to lie on the floor, and numbers of people applying for admission have to be refused. Besides the civil, the military portion of the population is also suffering greatly from the disease, and in some regiments here 30 per cent. had to be sent to the military hospitals from that cause. There are, in addition, many thousands of the population under private treatment; but, as there is no compulsory notification, the number cannot be stated even approximately. The weather has been somewhat foggy during the last few days, with a rising temperature. The cases which came under observation were altogether of a mild character, the fever lasting only from twenty-four to thirty-six hours, and the patients recovering after two days. Complications were rare, only two cases of catarrhal pneumonia having been observed as a result of influenza up to the present at the General Hospital; but several cases of relapse in patients who had already recovered from the first attack have been reported to me. Accounts of the outbreak of the disease in several provincial towns of Austria have also been received here. The majority of the physicians in Vienna consider the disease to be non-contagious, and in the course of a lecture delivered last week Professor Nothnagel called attention to the miasmatic character of the disease, which does not spread along the usual lines of traffic.

Demonstrations against a Professor.

At the Gratz University the Professor of Anatomy, Dr. Holl, had, by a recent order of the Minister of Public Instruction, to suspend his examinations on account of demonstrations made by the students.

Vienna, Dec. 16th.

ROYAL COLLEGE OF PHYSICIANS.

A COMITIA of the College of Physicians was held on the 19th inst., Sir Andrew Clark, Bart., President, in the chair. The gift of a portrait of Dr. Chowne, a late Fellow of the College, was announced by the treasurer.

The President stated that he had appointed Dr. Andrew to be the Harveian Orator for 1890, and Dr. Saundby to be Bradshaw Lecturer.

The names of the gentlemen who had recently passed the examination for the diploma of Public Health were submitted, and the diplomas directed to be issued.

Reports upon the subject of Leprosy, furnished by the Colonial Office, from Cyprus and the Cape of Good Hope, were received. Each report expressed belief in the communicability of the disease and the need for measures of isolation. These reports were referred to the Standing Committee on Leprosy.

A communication from the University of London, enclosing a draft scheme of the Senate for reconstituting the University, was next considered, and, after some discussion, was referred to the committee which had been appointed to report on this question.

A communication from the Royal College of Surgeons notifying the appointment of Messrs. Marshall, Hulke, and Bowlby upon the Laboratories Committee, was read; also communications from the Metropolitan Asylums Board respecting the ambulances of the Board, and the question of clinical work in the fever hospitals.

In response to an invitation from the Pharmacopœia Committee of the General Medical Council, the following Fellows were nominated to form a committee to suggest any new remedies it might be desirable to add to the Pharmacopœia:—Sir A. Garrod, Drs. Broadbent, Ord, C. T. Williams, J. M. Bruce, B. Yeo, F. Taylor, Biss, Lees, Murrell, F. T. Roberts, Stone, Warner, and L. Brunton.

The subject of the Regulations for the Diploma of Public Health was referred to the Council to discuss and report to the Committee of Management, with the object of bringing these regulations into harmony with the requirements of the General Medical Council.

On the recommendation of the Council, it was resolved, for the first time, to abrogate the Bye-law (xliii.) relating to vice-presidents, and it was referred to the Council to consider how the duties of vice-president might in future be carried out.

It was also resolved, on the recommendation of the Council, "That the substance of the official communication from the Government, in reference to the terms on which in future English medical men will be allowed to practise in France, be communicated to the medical journals and to the chief daily papers, with the intimation that the Royal College of Physicians has been requested by the Government to make the matter known to the profession in England. And that a subcommittee, composed of the Senior Censor (Dr. Bristowe), Sir William Roberts, M.D., Dr. Pavy, Dr. Pye-Smith, and the Registrar, be appointed to consider the communication from the Foreign Office, and to report thereupon to a future meeting of the Council."

Respecting the extension of the curriculum, the following resolution was passed and directed to be transmitted to the General Medical Council: "That while admitting that the extension of the medical curriculum to five years would conduce to the better education of medical students, and is desirable, they are not prepared at present to make any recommendation on the subject."

It was also resolved to rescind the resolution of the College transferring the nomination of Examiners on the subject of Hygiene to the Committee of Management, and that two Examiners be nominated, as in other subjects, by the Council.

Reports from the Committees upon the Fittings for the new Laboratories, and the Regulations respecting them, were received and adopted; and on the nomination of the President, the following three Fellows were elected as representatives of the College on the Laboratories Committee—Sir W. Roberts, Dr. Pye-Smith, and Dr. Payne. These gentlemen, together with the three nominated by the Royal College of Surgeons (*vide supra*), are empowered to appoint the Director of the Laboratories.

Medical News.

UNIVERSITY OF LONDON: M.D. EXAMINATION.—The following is a list of candidates who have passed the respective examinations mentioned below:—

Medicine.—John Hill Abram, University College, Liverpool; Evelyn Oliver Ashe, London Hospital; Percy Ashworth, B.S., B.Sc., Owens College and Manchester Royal Infirmary; James Thomas Bays, St. Mary's Hospital; Robt. Bird, B.S., St. Bartholomew's Hospital; J. R. Bradford, D.Sc. (Gold Medal), and Weldon Cragg Carter, University College; Wayland Charles Chaffey, St. Bartholomew's Hospital; Wm. Fredk. Clarke, B.S., and Herbert Evelyn Crook, B.S., Guy's Hospital; "Hilarn. M. Fernando, B.Sc., and John Lacy Firth, University College; Theodore Fisher, Guy's Hospital; Leonard

Maurice Gabriel, St. Bartholomew's Hospital; John Edwin Gould, University College; George William Hill, B.Sc., and Arthur Pearson Luff, B.S., St. Mary's Hospital; H. Grabham Lys, London Hospital; Henry John Macevoy, B.Sc., St. Thomas's Hospital; Alfred Alex. Mumford, Manchester Medical School and Royal Infirmary; C. Drummond Muspratt, B.S., Guy's and Sussex County Hospitals; *John Porter Parkinson and Wm. Bramwell Ransom, B.Sc., University College; William Newt Risdon, B.S., Guy's Hospital; Harry Arthur Sansom, St. Thomas's Hospital; Hugh Smith, London Hospital; *Edgar Herbert Thane and Edward Francis Willoughby, University College; William George Willoughby, St. Bartholomew's Hospital.

State Medicine.—Charles Edwd. Baddeley, King's College; F. François Burghard, M.S., Guy's Hospital; William Barltrop Featherstone, Birmingham School.

M.S. Examination.—Henry Percy Dean, B.Sc., University College; Alfred Parkin, Guy's Hospital.

B.S. Examination.—First Division: Alfred George Francis, St. Bartholomew's Hospital; Charles Arthur Kent, B.Sc., University College; Charles MacGowan Kitching and Robert Devereux Mothersole, Guy's Hospital; Berkeley Geo. A. Moynihan, Yorkshire College; Gilbert Benjn. Mower White, University College.—*Second Division:* George Black, Guy's Hospital; Wm. Soltau Fenwick, London Hospital and Strasburg and Berlin; Alfred Downing Fripp, Guy's Hospital; Francis Horatio Napier, St. Bartholomew's Hospital.

* Obtained the number of marks qualifying for the Gold Medal.

COLLEGE OF PHYSICIANS IN IRELAND.—The following gentleman has been admitted a Member of the College:

Albert Croly.

The diploma in Sanitary Science has been obtained by

James H. Poland.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—FELLOWSHIP EXAMINATIONS.—The following gentlemen, having passed the necessary examination, were admitted Fellows of the College:—

Louis Aloysius Byrne, L.R.C.S.I. 1885, L.K.Q.C.P.I. 1886, and Edmund Rundle, L.R.C.S.I. 1878, L.K.Q.C.P.I.

NEW MUZZLING ORDER.—A new muzzling order is published in a supplement to the *London Gazette* of Wednesday, extending the regulations at present in force, and making them applicable to various boroughs and counties throughout England, which is to take effect from and after Dec. 31st until further notice.

RABIES.—The number of dogs in England officially reported during the week ending Dec. 7th as affected with rabies was six against three in the previous week. All were killed. The distribution was as follows:—Kent, Middlesex, and Surrey (all exclusive of London) one each; York (West Riding) three.

SOCIETY FOR THE STUDY OF INEBRIETY.—A quarterly meeting will be held on Jan. 7th, 1890, in the rooms of the Medical Society of London, Chandos-street, Cavendish-square, at 4 o'clock, the President, Dr. Norman Kerr, in the chair. Paper: "The Law relating to Drunkenness and Inebriety," by J. R. McIlraith, Esq., M.A., LL.B., of the Middle Temple, barrister-at-law, Associate.

INFECTIOUS HOSPITAL, SURREY.—Last week, the deputations from the Sutton and Carshalton Local Boards met the members of the Epsom Board in committee to consider the advisability of erecting a joint fever hospital for the parishes of Epsom, Carshalton, and Sutton. It was unanimously decided that such a hospital was desirable for the combined districts. The plans &c. are to be the subject of further discussion.

THE COUNTESS OF DUFFERIN'S FUND.—The first annual report of the United Kingdom Branch of the National Association for Supplying Female Medical Aid to the Women of India is of an encouraging character. Since the fund opened in England in March last £1239 9*s.* has been received in subscriptions and donations; of this amount £310 19*s.* 5*d.* has been expended, leaving a balance on Nov. 30th of £1481 10*s.* 6*d.* When in full operation it is estimated that the United Kingdom Branch will require at least £1000 annually, and this sum the committee would like to make up by a thousand annual subscriptions of £1 each from as many ladies in Great Britain and Ireland. A good many requests have from time to time been received for information regarding the position and prospects in India of lady doctors, midwives, and nurses; these have been promptly complied with, and the applications for employment have been registered to meet the demands of the central committee; but it is not expected that any but fully qualified lady doctors will be required from home, the Indian Schools of Medicine being able to supply the nurses, compounders and dressers, &c.

THE NOTIFICATION ACT.—At the usual meeting of the Metropolitan Asylums Board on Saturday last the chairman stated that under the new Act the notification of all infectious diseases fortnightly in the metropolis during the last two months had been successively 925, 756, 657, 638, and 632.

THE INFLUENZA EPIDEMIC IN DUNDEE.—The steamer *Moravia*, at Dundee from Riga, had three of her crew suffering from the influenza epidemic, contracted by them while at Riga. Almost all the crew were ailing during the voyage, some getting better in a couple of days, whilst others suffered for ten days. They first chilled, then fever supervened, followed by an irritating cough, and then the malady subsided. Every precaution was taken to prevent the contagion spreading from the vessel.

DUNDEE FEVER HOSPITAL.—This new hospital, for the treatment of fever and other infectious diseases, erected by the Police Commissioners at King's Cross, in the northern suburbs of the city, was formally opened by Provost Hunter on the 11th inst. At present only one administrative block and two pavilion wards, each of which contains eighteen beds, have been erected, but the completed plan will comprise five additional pavilions. The present outlay amounts to between £15,000 and £16,000.

GREAT NORTHERN CENTRAL HOSPITAL.—A Loan Exhibition of pictures and other works of art in aid of the building fund of the Great Northern Central Hospital is to be opened by the Marchioness of Lorne, on Monday, Jan. 6th, 1890, in the gallery of the Camden School of Art, 4, St. Bartholomew-road, Camden-road, N. The exhibition will consist of a large number of interesting and valuable works by some of our most distinguished artists and sculptors, and will remain open for ten days.

THE AYR COUNTY HOSPITAL.—At the annual meeting of the supporters of this hospital, on the 9th inst., the report, which was adopted, showed that the total income for the year had been £1528, and the expenditure £1773, showing an excess of expenditure over income of £245. The total amount of debt still on the institution was £2900. The chairman intimated that the Marquis of Bute, the Earl of Stair, and thirteen other gentlemen, had agreed to each subscribe £100 towards clearing off the debt of the hospital—total, £1500.

A MORTUARY FOR GODALMING.—At a recent inquest held at the Charterhouse Arms, the jury, on viewing the corpse, which was lying in a stable of the inn, were greatly shocked at the wet condition of the body through the dilapidated state of the building. Subsequently the coroner expressed the necessity of providing a mortuary for the district of Godalming, urging the jury to take the necessary steps for that purpose with the proper authority. This has been done, and the question will be brought before the Burial Board at the next meeting.

VICTORIA UNIVERSITY.—The following appointments to vacant examinerships were made by the Council at a meeting held on Dec. 12th:—External Examiner in Medicine: Sir Dyce Duckworth, M.D., F.R.C.P. Edin., Lecturer on Clinical Medicine, St. Bartholomew's Hospital, London. External Examiner in Materia Medica and Pharmacy: J. Mitchell Bruce, M.D., F.R.C.P., Lecturer on Therapeutics, Charing-cros Hospital, London. External Examiner in Botany: G. R. M. Murray, F.L.S., senior assistant, Department of Botany, British Museum.

THE POLLUTION OF YORKSHIRE RIVERS.—At an important meeting of the Conservators of Yorkshire Fisheries, held at York last week, a report was presented by the committee appointed to consider the York sewage scheme, and a letter was read from the Local Government Board stating that they were not satisfied that the effluent resulting from the proposed chemical treatment would be properly purified unless it were passed over and through land, and that they would not be prepared to sanction the proposed sewage scheme unless it included satisfactory provision for that purpose. A letter was read from the Ilkley Angling Club, complaining of the pollution of the River Wharfe and the destruction of fish. The pollution of the Swale, at Ripon, the Skell, and the Aire was referred to, and a committee was appointed to communicate with the County Councils with reference to the pollution of the rivers of Yorkshire. The meeting con-

sidered other questions of public interest, including the Wharfe navigation improvement scheme, the protection of grayling, and the illicit traffic in salmon.

SAVAGE ATTACK ON A PRISON DOCTOR.—At Usk Prison recently, while Mr. D. F. Boulton, the medical officer, was going his round, he was attacked by a prisoner named Williams. The door of the prisoner's cell was opened by an attendant warder for the doctor to enter, and the latter was immediately afterwards felled by Williams, who struck Mr. Boulton on the head with a heavy roller. The doctor fell insensible, but the warder prevented any further injury. Williams was immediately taken before the visiting justices, and was sentenced to thirty-six strokes with the cat.

INCREASED ACCOMMODATION FOR LUNATICS IN SOMERSET.—On the 5th inst. a conference of the Asylum Committee of the Somerset County Council and the representatives of Boards of Guardians of the county was held at the Town Hall, Highbridge, to consider the question of accommodation for lunatics, idiots, and imbeciles. The meeting was arranged consequent upon a report from the committee that there were few vacant beds in the institution at Wells. After a prolonged discussion it was resolved that a second asylum be built in the western part of the county.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION. The official inspection and examination took place this week at the headquarters of the London Scottish R.V. The examiners were Surgeons Barnes and Gubbin, Medical Staff. Forty-four men were sent up and all passed. After being taken through a course of stretcher drill, each man had a searching *vivâ-voce* examination. At the conclusion Surgeon Barnes congratulated Surgeon Pearce on the result, and told the men that the class was by far the best he had ever inspected. The next class will be held at the Artists' headquarters, commencing Thursday, Feb. 6th, 1890.

HOSPITAL SUNDAY IN MELBOURNE: A GOOD EXAMPLE.—Oct. 27th was Hospital Sunday in Melbourne. The church that occupies the pride of place in the list is St. John's Church of England, in Toorak, a fashionable suburb. St. John's is credited with a total collection of £1017 12*s.* 6*d.*, but half of this goodly sum is the gift of a wealthy parishioner, the Hon. M. H. Davies, Speaker of the Legislative Assembly. Mr. Davies regularly places a cheque for £500 in the plate every Hospital Sunday. Not long ago he distributed £10,000 amongst the Melbourne charities.

SUICIDE OF A LONDON PRACTITIONER. — Mr. Edward Sandwell, L.R.C.P. Edin., M.R.C.S. Eng., of 10, Soho-street, Soho-square, aged fifty-one, made an attempt to commit suicide on the 12th inst. by inflicting severe wounds with a knife in his throat, and was conveyed to the Middlesex Hospital, where death supervened on Saturday last. The evidence at the inquest was to the effect that the deceased had been very depressed since August last. His memory was impaired, and he was feeble and childish, but attended patients until the day previously to the attempt. His mind lately was somewhat deranged, and steps had been taken to place him under restraint.

ST. ANDREW'S AMBULANCE ASSOCIATION, CRIEFF.—On Saturday, the 14th, Dr. Thom's second course of lectures was brought to a conclusion, when Dr. John Dunlop of Glasgow examined the pupils, both ladies and gentlemen, for certificates and medallions. There were fifty-two on the roll, and of these thirty-eight presented themselves for examination. The examination was, as usual, largely practical, and at the close Dr. Dunlop said that, though he was not permitted to state anything definitely as to the result, since his report had first to go to headquarters, he would simply remark that he was well satisfied, and that Dr. Thom had evidently spared no pains to bring them to a high state of efficiency. He inculcated prudence and modesty in the application of their knowledge. Dr. Thom's first course of lectures was delivered nearly four years ago, when there were over a hundred on the roll, and nearly seventy passed the examination. Besides these lectures, Dr. Thom has during the last five years conducted two courses of instruction for Volunteers, of whom over twenty have passed the War Office examination, wear the Geneva Cross, and constitute the stretcher-bearers of the 4th Volunteer Battalion of the Royal Highlanders (Black Watch), in which corps Dr. Thom holds the rank of surgeon.

METROPOLITAN AND PROVINCIAL HOSPITAL SUNDAY COLLECTIONS.—The committee of the Pimlico United Temperance, Friendly, and other Societies' Sunday demonstration, which took place a short time since in aid of the funds of the Belgrave Hospital for Sick Children, last week handed over to the Hospital authorities £130 17*s.*—The net result of the current year's Hospital Sunday collections at Hull amounted to £610, which is to be divided thus: Hull Royal Infirmary, £480; Dispensary, £62; Children's Hospital, £51; and Homœopathic Dispensary, £17.

EMIN PASHA'S CONDITION. — A telegram from Zanzibar dated the 12th inst. gives the following bulletin respecting Emin Pasha's condition received from Bagamoyo: "Emin Pasha suffered severely on the evening of the 9th inst. from a distressing cough and difficulty in expectoration, but was somewhat better yesterday. All signs of blood in the sputa have gone, and the injured eye is almost completely restored. Serum still continues to ooze from the right ear. The patient requires assistance in every movement, owing to the severe contusions, the discoloration of which is, however, gradually going. He is in good spirits. (Signed) PARKE, Surgeon."

BEQUESTS AND DONATIONS TO HOSPITALS.—The Corporation of London has granted 100 guineas to the Royal Maternity Charity, Finsbury-square, and 200 guineas to the Royal General Dispensary, Bartholomew Close.—The late Mr. Charles William Stoughton, of Grosvenor-place, Belgrave-square, London, has bequeathed £300 to the St. George's Hospital, Hyde Park Corner.—Mr. William Westgarth, late of Bolton-gardens, London, has left by his will £500 to the Edinburgh Infirmary.—The City of Dublin Hospital has received £300 under the will of Mrs. McDowell, and a similar amount from the executors of the late Mr. J. R. Berwick.

THE SANITARY DEPOT, HORNSEY.—Mr. R. D. M. Littler, Q.C., chairman of the Middlesex County Council, formally opened on the 13th inst. a new sanitary depôt for Hornsey, erected in the High Street by the Local Board of Health. The prominent features of the depôt are a mortuary with coroner's court and necessary accessories, and a dust destructor for destroying the house and road refuse of the parish. In the first instance the Board erected the mortuary. Subsequently, a steam laundry, disinfector, fumigator, ambulance sheds with stabling, and finally the building for the treatment of house &c. refuse. The cost of the whole works has been about £13,000.

NEUROTIC SCHOOL BOARD CHILDREN.—On Thursday afternoon at the meeting of the School Board for London, Dr. Savage, on behalf of a deputation from the Council of the British Medical Association, presented a memorial pointing out that many children were nervously unfitted for the ordinary course of instruction, but might receive a useful education if it were conducted on special lines. There were children of so peculiar a brain construction that unless the defect were early detected and specially treated, they would develop into criminals and vagabonds. On the motion of Dr. Gladstone, the request for permission to examine all Board school children was referred to the management committee.

THE VICTORIA INFIRMARY OF GLASGOW.—At the second annual meeting of the Court of Contributors held on Thursday, the 5th inst., the governors in their report regretted their inability to announce the completion of the section of the buildings at present in course of construction, and the opening of them for the reception of patients, owing to the strikes and other causes. The completion and opening may, however, be expected some time next month (January, 1890). The principal wards, corridors, and staircases will be lighted by electricity, which, with the heating and ventilating improvements adopted, will conduce to the health and comfort of the patients. Dr. Donald Mackintosh, formerly resident assistant in the Eye Infirmary, and subsequently senior assistant in Belvidere Hospital, has been appointed resident medical superintendent of the Victoria Infirmary out of many applicants for the post. The report acknowledges the great practical ability brought to bear by the governors specially elected by the representatives of workmen contributing to the funds of the institution on many of the matters connected with the erection of the buildings, and which has been of eminent service to the board

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ASHE, E. OLIVER, M.D. Lond., late House Physician, has been appointed House Surgeon to the London Hospital.

BIRKENHEAD, HAROLD, L.R.C.P. Lond., M.R.C.S., has been appointed Junior House Surgeon to the Royal Albert Edward Infirmary and Dispensary, Wigan, vice E. C. Lomas, M.B. Vict., M.R.C.S., promoted to be Senior House Surgeon.

BOSWELL, J. J., M.D. & L.R.C.P. Lond., has been reappointed Medical Officer to the Port and Union District, Faversham.

BROWN, JOHN, M.D. Vict., B.S., D.S.Sci., &c., has been reappointed Medical Officer of Health to the Borough of Bacup, and Physician to the Sourhall Fever Hospital.

BURGHARD, FRÉDÉRIC F., M.D., M.S. Lond., F.R.C.S., late Surgical Registrar to Guy's Hospital, has been appointed Assistant Surgeon to King's College Hospital, vice Mr. Watson Cheyne, F.R.C.S., appointed Surgeon.

BURKITT, J. C. S., M.D., M.Ch. Irel., has been reappointed Medical Officer for the Whitwick Union District.

DAVISON, JAMES, M.D., M.R.C.P., has been appointed Honorary Physician to the National Sanatorium for Consumption and Diseases of the Chest, Bournemouth, vice Dr. Falls, deceased.

DEAN, THOS., M.D. St. And., M.R.C.S., has been reappointed Medical Officer to the Burnley Union and Rural Districts.

DUCKET, C. ALEX., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Great Yarmouth Hospital.

FRY, J. FARRANT, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the Shepton Mallet District Hospital.

HARRISON, A. J., M.B. Lond., M.R.C.S., L.S.A., has been reappointed Physician to the Bristol General Hospital.

HICKS, PHILIP, B.A., M.B. & B.S. Cantab., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Warneford Hospital, Leamington, vice Bernard Rice, M.D. Lond., resigned.

HINGSTON, ANDREW, M.R.C.S., L.S.A., has been reappointed Medical Officer of Liskeard Union District.

IDESON, J. J., L.S.A., has been reappointed Medical Officer for the Colne District of the Burnley Union.

JOLLY, S. BLAKE, M.B. Cantab., M.R.C.S., L.S.A., has been appointed Medical Officer of Health to the Lewisham District.

LAWSON, SAMUEL, L.F.P.S., L.M. Glas., has been reappointed Medical Officer for the Marsden District of the Burnley Union.

MACLEOD, CHARLES G., M.A., M.B., C.M. Edin., L.R.C.P., has been appointed Junior Assistant Medical Officer to the Saint Andrew's Hospital, Northampton, vice A. L. F. Robertson-Fullerton, M.B., C.M., resigned.

MARSH, N. P., M.B. Lond., M.R.C.S., has been appointed Physician to the Children's Infirmary, Myrtle-street, Liverpool.

PEARSON, A. E., M.R.C.S., L.R.C.P. Edin., has been appointed Resident Medical Officer to the Leeds Borough Hospitals, vice J. Hick, M.R.C.S., L.R.C.P. Edin., resigned.

RHODES, JAMES, M.R.C.S., L.S.A., has been reappointed Medical Officer to the Glossop Union and Rural Districts.

STIRLING, ALEX. WILLIAMSON, M.D. Edin., has been appointed Medical Officer of Health for Grays, Essex, vice S. J. J. Kirby, M.D., resigned.

TEED, F. L., has been appointed Public Analyst for Camberwell.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM AND MIDLAND SKIN AND LOCK HOSPITAL.—A Third Officer on the Acting Medical Staff.

CHELMSFORD UNION, Chelmsford.—Medical Officer, including the office of Public Vaccinator, for the Eighth District of this Union. Salary £140 per annum (which includes all medicines and appliances), together with the extra fees allowed by the Orders of the Local Government Board, and a sum of 12s. 6d. for each Midwifery case. The Vaccination Fees are 2s. 6d. at the surgery or within a mile from the Vaccinator's residence, 3s. up to two miles, and 4s. over that distance.

CHELTENHAM GENERAL HOSPITAL.—House Surgeon. Salary £80 per annum, with board and apartments.

DERBYSHIRE GENERAL INFIRMARY.—Resident Assistant House Surgeon, for six months. No salary, but a bonus of £10 is given.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Surgeon to the Out-patients of this hospital.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Surgical Registrar for one year. Honorarium of £40 at the end of the term.

LEEDS GENERAL INFIRMARY.—Resident Ophthalmic Officer, for six months. Board &c. will be provided, and an honorarium of £50 given at the expiration of the six months, if the officer's conduct is satisfactory.

LIVERPOOL NORTHERN HOSPITAL.—House Surgeon and Assistant House Surgeon. Salaries £100 and £70 per annum respectively, with residence and maintenance in the house.

MERCER'S HOSPITAL, Mercer-street, Dublin.—Physician.

NORTHAMPTON GENERAL INFIRMARY.—House Surgeon. Salary £125 per annum, with furnished apartments, board, attendance, and washing.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months, Board, lodging and washing, no salary.

ROYAL BERKS HOSPITAL, Reading.—House Surgeon. Salary £80 per annum, with board and lodging.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician, and a House Surgeon, for six months. Board and lodging are provided.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Two Honorary Gynecologists.

Births, Marriages, and Deaths.

BIRTHS.

BREACH.—On Dec. 11th, at The Cottage, Yattendon, Berks, the wife of J. H. Breach, M.R.C.S., of a daughter.

COOKE.—On Dec. 9th, at Warrior-square, St. Leonards-on-Sea, the wife of John Cooke, M.B. Lond., of a son.

DAVENPORT.—On Dec. 6th, at St. Kilda, Melbourne, the wife of Dr. Arthur F. Davenport, of a daughter.

DISMORR.—On Dec. 12th, at Tudor Lodge, Lewisham, the wife of Henry Dismorr, M.R.C.S., of a daughter.

HILL.—On Dec. 9th, at Southsea, the wife of Surgeon C. B. Hill, Medical Staff, of a daughter.

PECHELL.—On Dec. 11th, at Curragh Camp, Ireland, the wife of Surgeon A. A. Pechell, M.B., Medical Staff, of a son.

RITCHIE.—On Dec. 4th, at Tranent, N.B., the wife of D. Ritchie, M.D., of a son.

RYLE.—On Dec. 12th, at Northland, Hadley-green, Barnet, the wife of Dr. R. J. Ryle, of a son.

TAYLOR.—On Dec. 16th, at Kennington-park-road, S.E., the wife of Herbert Taylor, M.B., of a son.

MARRIAGES.

BATEMAN—GARROD.—On Dec. 11th, at St. Mary's, Bath, by the Rev. Prebendary Coleman, assisted by the Rev. J. S. Barrett, Frederic John Brownfield Bateman, L.R.C.P., L.R.C.S. Ed., eldest son of Dr. Bateman, F.R.C.P., J.P., of Norwich, and of Burlingham Lodge, Alburgh, Norfolk, to Mary Stuart, daughter of the late C. W. Garrod, Esq., solicitor, Wells, Somerset.

ELKINGTON—OMMANNEY.—On Nov. 20th, at St. John's Church, Peshâwur, Henry Percival George Elkington, Surgeon Medical Staff, to Helen Violet, third daughter of Coll. E. L. Ommanney, C.S.I., B.S.C., Commissioner, Peshâwur.

FROSSARD—MARTIN.—On Dec. 17th, at St. Mark's, Lewisham, Emilien Edward Frossard, M.R.C.S., L.R.C.P., of Bishop's Lydeard, Somersetshire, son of the Rev. Emilien S. Frossard, M.A., late Chaplain of the British Consulate, Bordeaux, to Margaret Rosina, daughter of David Martin, formerly of Croydon, granddaughter of the late Rev. Francis Martin, of London and Bordeaux.

HARDING—ROBERTS.—On Dec. 11th, at Holy Trinity Church, Eastbourne, Charles O'Brien Harding, M.R.C.S., L.R.C.P. Lond., of Highbury, third son of the late J. F. Harding, Esq., of Highbury New Park, to Amy Persis, third daughter of Bransby Roberts, M.D., of Badlesmere, Eastbourne.

LAING—LEITH.—On Dec. 10th, at St. John's Church, Hollington, Alfred William Laing, M.R.C.S., L.R.C.P., of Wellington Lodge, Hastings (late of Summerfield, Putney), to Laura Leighton Leith, youngest daughter of the late R. W. J. Leith, of Castelnau, Barnes, and goddaughter of the late W. Leighton Nutter and Mrs. W. L. Nutter, of Brookwood.

LESLIE—CHANDLER.—On Nov. 7th, at St. Andrew's Church, Calcutta, Surgeon J. T. W. Leslie, M.B., I.M.S., to Eleanor, daughter of the late E. G. Chandler, Esq.

SWEETNAM—HARBORD.—On Dec. 14th, at St. George's, Bloomsbury, J. L. Sweetnam, Staff Surgeon Royal Navy, to Rosalie Harriet, widow of the Rev. C. H. Harbord, R.N., and daughter of the late Major-General R. R. Ricketts, H.M. Indian Army.

WALES—ASTON.—On Dec. 11th, by licence, at Ingoldmells Church, Lincolnshire, A. Wellesley Wales, L.R.C.P.E., L.R.C.S.E., L.A.H.D., Church View, Burringham, Doncaster, late Resident Surgeon, County Antrim Infirmary, Ireland, son of George F. Wales, Esq., M.D., F.R.C.S.E., Landscape, Greenisland, Belfast, to Clara E. Aston, daughter of the late Joseph Aston, Esq., M.R.C.S.E., L.A.C., &c., Barnetby, Ulceby, Lincolnshire.

DEATHS.

HOYLAND.—On Dec. 13th, at Whitworth-road, South Norwood, Charles William Hoyland F.R.C.S., aged 82.

IRVING.—On Dec. 12th, at The Terrace, Tunbridge, Charles Irving, surgeon, aged 44.

TODD.—On Dec. 17th, at 51, Earlham-grove, Forest-gate, John Waterloo Todd, M.R.C.S., L.S.A., formerly of 301, Mile-end-road, E., aged 74.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, December 19th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Dec. 13	29·84	S.	46	45	53	48	30	·01	Raining
,, 14	30·17	N.	37	37	..	42	35	·16	Foggy
,, 15	30·43	W.	37	36	..	47	35	..	Foggy
,, 16	30·43	W.	47	46	..	51	36	·02	Overcast
,, 17	30·46	S.W.	51	50	..	55	46	·05	Overcast
,, 18	30·30	S.W.	52	50	..	53	49	·01	Overcast
,, 19	30·36	W.	39	39	49	42	38	·03	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "to the Publisher."

We cannot undertake to return MSS. not used.

POOR PAY FOR APPOINTMENTS TO COLLIERIES, &c.

A Subscriber sends us a form of contract required by a colliery company to be signed by any medical man undertaking to attend their *employés* and their families—say 3600 for £300 a year, or 1*s.* 8*d.* per head per annum, or a farthing and a half per member per week. But even these terms are further complicated and reduced by his undertaking to provide medicines, &c.—which "&c." is a very large order—and by a peculiarly shabby provision that when an additional opinion is required, even in the view of the company, the unfortunate medical man is to provide it at his own expense! Our correspondent thinks we should put our readers on their guard against such engagements, binding for five years on the practitioner, who, on the other hand, may be dismissed by the company at six months' notice. But it would be a poor compliment to our readers to think that they have not sense enough to guard themselves against such illiberal terms.

M.D.—1. The *Medical Record* (New York).—For replies to the other questions we would advise application to Sell's, Fleet-street, London.

Dr. Bell Taylor.—The reports have been received.

THE MASON DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—The readers of your widely circulated journal are already made acquainted with the trial at law of Mason *v.* Chevens, and it is unnecessary to give further particulars of it, unless to state that it was a professional rather than a personal action, affecting as it mainly does Poor-law medical officers. The Colchester Medical Society, of which Mr. Mason is a member, has already collected at its first meeting the sum of £7 17*s.* 6*d.* towards a fund for defraying the amount of £150, of which Mr. Mason is out of pocket. May I ask you to have the kindness to receive contributions towards this fund? and I shall be happy to act as local treasurer for this district and forward to you a list of such contributions as I may receive.

I am, Sirs, yours faithfully,

GEORGE BROWN, M.D.,
Hon. Sec. to Colchester Medical Society.

Headgate, Colchester, Dec. 18th, 1889.

*** We shall be happy to receive subscriptions on behalf of the Fund.—ED. L.

ENGLISH DOCTORS IN FRANCE.

Fairplay.—A French physician does not require to pass the examination of the English Colleges. He might practise in England without interference.

Mr. Quinby (Liverpool).—The paper will be published in an early number.

"THE COMPARATIVE SAFETY OF ANÆSTHETICS."

Sir Walter Simpson, Bart., writes to us upon the above much-vexed question. He says he is "surprised" how doctors discuss the question, as if it were of any "practical importance." Why our correspondent regards it as trivial is because, "statistically speaking, the percentage of deaths under anæsthetics is so small as to be practically *nil*." He institutes a comparison between deaths due to railway accidents and those arising from anæsthetics; but the parallelism is too strained for persons who, like ourselves, are not mere statisticians to grasp. As far as we are able to understand Sir Walter Simpson, he regards chloroform as a fitting toy for children to play with, and dubs the ordinary precautions taken by skilled chloroformists as superstition. Sir James Y. Simpson, when first experimenting with chloroform, certainly regarded it as a perfectly safe agent; but, unfortunately, the experience which has accrued during the past forty years has shown his belief to have been too sanguine. To a person who looks upon human beings as mere units, useful in making up statistics, a loss of one life in every 2000 or 3000 may seem a bagatelle; but to the medical man, who has to deal with the individual, and, what is more, with the individual's friends, the case is otherwise, and he asks himself, "Could I by any means in my power have saved that life?" If the answer is "Yes," that medical man is—and, we think, rightly—self-condemned, even though the fatality is as a grain of sand in the view of the statistician.

Mr. H. E. H. Matthews.—So far as we can tell, the only apparently suitable place for the case would be one of the undermentioned institutions:—Cripples' Nursery, 15, Park-place, Clarence-gate, Regent's-park; Home for Crippled Children, 17, White Ladies-road, Clifton, Bristol.

W. W.—1. B should be guided by the rule of the place, of which A will inform him. The rule varies in different places.—2. The confusion of names must be met by each practitioner being particular in the description of his own Christian names and professional titles.

C. M. F. and *M.B.* have not enclosed their cards.

HOW DISINFECTION SHOULD BE CARRIED OUT.

To the Editors of THE LANCET.

SIRS,—I shall feel obliged if you will kindly favour me with a reply to the following questions.

In my experience the manner of disinfecting infected premises, as carried out by the sanitary authorities, appears unsatisfactory. The bedding and bed linen are carried from the sick room through the house to their vans, thereby spreading through the house the contagion which up to that time had been confined, as far as possible, to the one room—the room itself being *afterwards* disinfected. In a case of scarlet fever, which only remained in a house a few hours after its development, and in which the attending practitioner fumigated the room for two hours with specially prepared sulphur, the officers of the sanitary authority persisted in carrying out their own process of disinfection. As these matters closely concern medical men in the approaching compulsory notification of infectious disease, I should like to know—(1) Whether their method is a safe one, and if it is the usual one? (2) Whether the authorities have power to enforce their own measures in a case like the one referred to? And (3) Whether a private practitioner would render himself liable by refusing to permit further interference in such cases.

I am sorry to have troubled you with such a matter, but, as I believe it is one upon which we should clearly understand our position, I trust you will favour me. I am, Sirs, yours obediently,

Dec. 11th, 1889. M.R.C.S.

*** 1. We feel convinced that the risk of removing such articles as bedding from an infected room, through the same house as that room is situated in, to a van with a view to disinfection at a properly fitted station, is not to be compared with the much greater risk of professing to disinfect bedding in the infected room. No bedding can be properly disinfected unless it is thoroughly penetrated by a high temperature, unless it is entirely taken to pieces, and each part—as in the case of feathers—exposed to an efficient disinfectant in detail. Hence, attempts to disinfect bedding in private houses must be regarded as most untrustworthy.—2. The sanitary authority has power to enforce "disinfection," and mere exposure of bedding and similar articles to fumes of sulphur or chlorine is certainly not "disinfection" in the proper sense of that term.—3. A private practitioner has no right to interfere with the officers of the sanitary authority in such cases. The owner of the bedding might do so, but, if summoned for obstructing the officers in the performance of their duty, the decision of the magistrates would depend on the evidence submitted to them as to the efficiency or otherwise of the fumigation process; and we doubt whether anyone having skilled knowledge as to disinfecting processes would venture to assert that articles such as bedding, which are so difficult of penetration, could be efficiently disinfected by the exposure of their surfaces to sulphur fumes.—ED. L.

MEDICAL PRACTICE IN THE STATES.

M.B. asks what prospects for practice a British educated and registered practitioner would have in the United States of America, and what State in the Union would be most likely to afford the best chances for practice?

G. P. L.—There can be little doubt, we think, of the liability of P. R—— to pay under the circumstances. But it is a legal question complicated by the Employers' Liability Act, and our correspondent had better take his solicitor's opinion before going to law.

A.—The grievance has been repeatedly commented on in THE LANCET. No doubt serious injury is often experienced by invalids and persons of weak nerves as a result of the church-bell nuisance.

A. B.—The ambulance referred to may be seen at the entrance hall of the Westminster Hospital, where it is stationed.

Claudus pes.—We do not prescribe.

PERIOSTEAL NODES IN ACUTE RHEUMATISM.

To the Editors of THE LANCET.

SIRS,—Having read with interest in your issue of Nov. 30th the cases brought before the Clinical Society by Dr. Coutts and Dr. Garrod, it occurred to me that the following case might be worth recording.

Florence ——, aged thirteen, was admitted during last year into the Royal United Hospital, Bath, under the care of Dr. Fox, whilst I was resident medical officer. She sought admission on account of the development and increase in size of small subcutaneous nodules situated over the olecranon processes, the condyles of each humerus, and over all the metacarpo-phalangeal joints on their dorsal surface. The nodules varied from the size of a swan shot to that of a pea, were painless, slightly elastic, and very slightly movable. The skin over the nodules was quite natural. The question was whether they were in the periosteum or in the fibrous tissue surrounding the joints. The doubt was dispelled, at any rate from my mind, by their slight mobility, and, rightly or wrongly, I concluded that the nodules were situated in the fibrous tissue. No nodes were anywhere present, nor any enlargement of bones. The patient had suffered from two or three attacks of rheumatic fever, and had well-marked aortic and mitral disease. There was no evidence of hereditary syphilis, and no history of chorea. The nodules, under the constant application of iodine, gradually disappeared.

I am, Sirs, your obedient servant,

Clapton-common, Dec. 4th, 1889. ARTHUR L. MARSHALL.

HENBANE SEEDS FOR TOOTHACHE.

To the Editors of THE LANCET.

SIRS,—Henbane seeds are still not uncommonly used for toothache, under the impression that the ailment is caused by worms in the decayed teeth. A penny is made hot in the fire, and immediately on removal a pinch of the seeds is dropped on it, and the whole covered at once with a wineglass, which becomes filled with thick fumes. The glass is then applied to the mouth and the smoke inhaled, when the worms are supposed to be expelled. I called one morning to see a patient who had just used the remedy, and I naturally essayed to correct his notion of the cause of his malady; but he smiled in a superior manner, and said that he had not only seen the worms on two or three occasions, but could show me three in the glass he had recently used. There, sure enough, were three little brown-headed larvæ—or, at all events, they looked exactly like larvæ to the naked eye—but on examining them at home under a 2-inch glass their true nature was explained. They were simply the embryos of three seeds which had been forcibly expelled on the rupture of their seed-coats, and had adhered to the moist sides of the glass, and thus escaped the destruction which had overtaken the rest. Science was triumphant; my patient confessed his defeat, and remarked that he had long known that we must not believe all we *hear*, but found also that we must not believe all we *see*. I am, Sirs, yours faithfully,

Commercial-road, E., Dec. 9th, 1889. L. B. BRUNTON.

HOMES FOR NERVOUS INVALIDS.

To the Editors of THE LANCET.

SIRS,—I should be very greatly indebted to any of your readers who could recommend me a hospital home for a nervous (not insane) elderly lady of small means, in whose case I am interested. A certain amount of care and attention would be necessary, as there appears to be a strong hysterical tendency, possibly induced by the misuse of drugs. Having been many years abroad, I am myself ignorant where to apply.

I am, Sirs, yours faithfully,

Dec. 13th, 1889. F.R.C.P.

THE HATTON-GARDEN ROBBERY.

To the Editors of THE LANCET.

SIRS,—I shall esteem it a favour if you will insert in your journal, for the benefit of any of the medical profession who wrote to us on Monday, the 16th inst., that, owing to the "Hatton-garden robbery," the whole of our mail was stolen before it reached our offices on Tuesday morning, and we shall be pleased if they will communicate with us again at once.

We are, Sirs, yours faithfully,

The Sanitary Wood Wool Co., Limited, Hatton-garden, Dec. 18th, 1889. MARK C. RIMMER, Sec.

A PARTNER'S RIGHT OF SUCCESSION TO APPOINTMENTS HELD BY RETIRING PARTNER.

R. & D.—The very accident which happened in this case seems to us to show that our correspondents would have been justified in applying for the appointment. Public appointments must be matters for public competition. Much consideration is due to the partner of a deceased holder of the appointment, but that must be shown by those who have the responsibility of the gift in their hands.

B.S.Lond.—1. *Le Progrès Médical*, rue des Cannes, 14.—2. The Assistant Registrar of the University.—3. Parkes' or Wilson's Hygiene, Ganot's Physics, Baldwin Latham's Sanitary Engineering, and the Public Health Acts.

Mr. Macnamara.—An indiscreet action of a medical officer of health is likely to bring its own set of punishments; but it would not be any excuse for a medical man violating the law.

Medicus.—The notification is compulsory on the medical man.

Waterloo.—We are not aware of any such law.

VINDICATION OF PROPER CHARGES.

To the Editors of THE LANCET.

SIRS,—I beg to enclose a specimen of handbill sent out by one of the advertising gentry who are now, alas, becoming too numerous. We have hitherto managed, barring a few exceptions in the line of cheap practice, to keep ourselves fairly select; but it seems that we are to have our black sheep after all. Why will medical men cut so? It is just as easy to get at least 2*s.* 6*d.* a visit as less, and especially in these days of prosperity; for there is abundance of work just now, and there is absolutely no need to undersell each other, for there is room for all of us. It is only tending to pauperise the people.

I remain, Sirs, yours faithfully,

Dec. 4th, 1889. MEDICUS.

*** We entirely agree with the writer of this letter. He encloses a small handbill advertising the low charges of a medical dispensary at South Shields—e.g., Medicine and advice, 6*d.*; visit and medicine, 1*s.* We withhold the advertiser's name, in the hope that he will recognise the force of our correspondent's reasoning in favour of proper charges, and desist from distributing such undignified advertisements.—ED. L.

MEDICAL PRACTICE IN SOUTH AFRICA.

To the Editors of THE LANCET.

SIRS,—*Apropos* of a note on the above subject in THE LANCET of Oct. 12th, the following, which appears in a local directory, may amuse your readers:—"Mahler, J., —— Street, Photographer, Canteen Keeper, and General Medical Practitioner."

I am, Sirs, yours obediently,

Nov. 17th, 1889. S. AFRICA.

ERRATA.—In our preliminary notice last week of Prof. Crookshank's book, p. 1232, two rather important printer's errors escaped correction. In line 33 from the commencement of the article, for "Saltarian" read *Suttonian*, and in line 10 of next column for "Moorhouse" read *Murchison*.—The title of Dr. Warden's paper, reference to which was made in our report of the meeting of the Midland Medical Society of Nov. 6th (*ante* p. 1065), was "Parosphresia and Parageusia."—The meeting held for the purpose of establishing a Centre in Paris of the St. John Ambulance Association took place on *Saturday*, the 7th inst., and not on Sunday, as stated in our last.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Bryant, London; Sir Granville-Egerton, Kansas; Dr. Steavenson; Mr. Bland Sutton, London; Mr. Penduvis, London; Dr. H. Snow; Mr. Barber Smith, Dulwich; Mr. Denton, Hatton-garden; Dr. Heatherley, New Ferry; Mr. W. Joyce, London; Mr. Stenhouse, Glasgow; Mr. Stanmore Bishop; Dr. H. H. Brown, Wolverhampton; Mr. E. East, London; Prof. Good, Winnipeg; Mr. Roberts, London; Messrs. Richardson and Co., London; Mr. Southam, Manchester; Messrs. Griffin and Co., London; Mr. Sleman, London; Mr. Beck, London; Messrs. Lee and Martin, Birmingham; Mr. Neve, Kashmir; Dr. Northrup, New York; Mr. F. A. Davies, London; Dr. W. Hunter; Messrs. Read and Bailey, London; Mr. W. R. H. Stewart, London; Messrs. Christy and Co., London; Dr. Purcell, London; Mr. Poyser, London; Dr. Van Buren, London; Dr. Bell Taylor, Nottingham; Messrs. Godfrey and Cooke, London; Mr. A. C. Waters, London; Messrs. Clark, Son, and Platt, London; Mr. D. Dalton, London; Dr. Ralfe, London; Mr. M. Lowther, Brighton; Dr. L. Parkes, London; Mr. Wordsworth, West Brighton; Dr. McMordie, Belfast; Dr. May, Hanwell; Mr. Edridge Green, London; Mr. Ellis, Gloucester; Messrs. Mottershead and Co., Manchester; Mr. J. H. Crocker, Eccles; Messrs. G. Street and Co., London; Dr. Leet, Bootle; Messrs. Burroughs, Wellcome, and Co., London; Mr. Thornton, Whitby; Mr. Stretton; Messrs. Fowler and Miller, Sunderland; Dr. G. B. Beale, London; Messrs. Blondeau et Cie., London; Mr. R. H. S. Carpenter; Dr. Thomas, Bournemouth; Mr. G. F. Wright, York; Dr. J. M. Clarke, Bristol; Messrs. Mertens

and Co., London; Mr. J. F. Horne, Barnsley; Messrs. Fairbridge and Son, London; Surgeon-General Maclean, Southampton; Mr. Erskine Hill, London; Mr. A. G. R. Foulerton, Chatham; Messrs. Back and Co., London; Mr. W. B. Cousens, Taunton; Dr. J. Phillips, London; Mr. Boobbyer, Nottingham; Dr. Thom, Crieff; Messrs. Hughes and Morris, London; Dr. Milson, Finchley; Mrs. Hartland; Messrs. Lee and Nightingale, Liverpool; Mr. F. Bramwell, London; Messrs. Fry and Sons, Bristol; Dr. M. Mackintosh, London; Messrs. Benson and Co., London; Mr. Merlin, Sutton; Dr. Gason, Rome; Messrs. W. and A. K. Johnstone, Edinburgh; Dr. Rutherfoord; Messrs. Waterloo and Sons, London; Mr. H. Lee; Dr. Barnard, Paris; Mr. Leonard Mark, London; Dr. Warden, Birmingham; Mr. R. Williams, London; Dr. Bontor, Berkhampstead; Dr. Sheen, Cardiff; Dr. R. H. Lloyd, London; Mr. W. Marriott, London; Mr. H. Case, Watford; Dr. G. Brown, Colchester; Mr. Diggens, Devonport; Dr. Glassier, Southport; Mr. Rimmer, London; Mr. H. Sell, London; Mr. Round, Southwark; Dr. Lindsay, U.S.A.; Mrs. Campbell, London; Dr. Gangitano, Naples; Mr. Ford, Devonport; Mr. Hubbersty, Stamford; Mr. J. B. Browne, London; Mr. Jenkins, Dresden; Dr. Skrimshire, Norfolk; Mr. Vickers, London; Mr. Frowde, London; Messrs. Kilner Bros., London; M. Berthier, Paris; Mr. Hugo, Reading; Mr. Williams, Cardiff; Dr. MacLean, Herts; Mr. Pentland, Edinburgh; Mr. Stern, London; Mr. Cornish, Bloomsbury; Dr. Carley, Dublin; Dr. Dulles, Philadelphia; Mr. Hatchard, Piccadilly; Mr. Sutton, Crewe; Mr. T. Cooke, London; Dr. McLauchlan, Edgbaston; J. C. R.; An Invalid; L.R.C.P.; B.S.Lond., F.R.C.S.Eng.; R. & D.; G. P. L.; Jeyes' Sanitary Compound Co., London; P. Q. R.; A. B.; Secretary, Royal Albert Asylum, Lancaster; Alpha, Dublin; University, London; Another G.P.; Yorkshire, London; Gwalia, Swansea; G. N., Birmingham; An Unqualified Assistant.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Tully, Hastings; Mr. Eyre, Pontypool; Dr. Fausset, Tamworth; Mr. Tyte, Minchinhampton; Dr. Monckton, Marden; Mrs. Nicholl, Cowbridge; Dr. Poole, Lancashire; Mr. G. Beal, Brighton; Mr. Savage, South Africa; Mr. Shelly, Bilston; Mr. Wyley, Coventry; Messrs. Reed and Co., Bristol; Mr. Lindsay, Enniscorthy; Messrs. Marshall and Co., Stoke Newington; Mr. Purland, Woolwich; Messrs. Seabury and Johnson, London; Dr. Carlo, Napoli; Mr. Rowe, Dover; Dr. Deas, Exeter; Dr. Bateman, Norwich; Dr. Guest, Manchester; Dr. Davies, Glamorgan; Mr. Bonar, Bristol; Mr. Martyn, Cornwall; Mr. Welch, Westmoreland; Mr. Birchall, Liverpool; Mr. Blatchley, London; Mrs. Löhr, Cambridge; Mr. Rauschke, Leeds; Major Pead, East Dulwich; Dr. Weld, Victoria; Mr. Wells, Clifton; Dr. Ritchie, East Lothian; Mr. Hensley, Bath; Dr. Gibson, Kent; Dr. Crew, Higham Ferrers; Mr. Hamilton, Yorks; Mr. Copeman, Lambeth; Dr. Barnes, Axminster; Mr. Heywood, Manchester; Rain, London; Ebor, London; Sanitas, London; A. P. T., London; B.A., London; Secretary, Wigan Infirmary; C. F. T., London; J. W. D., London; Manager, Victoria Carriage Works, London; W. A., London; Matron, Kidderminster Infirmary; P. B. D., London; M.D., Wood-green; Secretary, Coventry Hospital; Scapula, Borough; D. S., London; Secretary, Hospital for Consumption, Manchester; Alpha, London; P. S., Liverpool; Lady Superintendent, Bournemouth; Assistant, Hanley; M. O. S.; Sister Katherine, Plaistow; Omega, London; M.D., Accrington; Surgeon, Pontypridd; Alpha, Clifton; Sigma, Tamworth; Medicus, Aberdeen; Medicus, Manchester; T. V. F., London; R. W., Liverpool; A. B., York; Secretary, Notts. General Hospital; Miss L., London; B. S., York; St. Hilda's, Walthamstow; Surgeon, Bethnal-green; Alpha, Huddersfield.

City Press, Seafaring, Reading Mercury, Glasgow Herald, Weekly Free Press and Aberdeen Herald, Liverpool Daily Post, Mining Journal, Hertfordshire Mercury, Western Gazette, Surrey Advertiser, Chester Courant, Trade, Finance, and Recreation, &c., have been received.

Medical Diary for the ensuing Week.

Monday, December 23.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Sansom: Mitral Stenosis in Children.—Mr. Watson Cheyne: Case of Abscess in Left Temporo-sphenoidal Lobe after old-standing Ear Disease; trephining; recovery.

Tuesday, December 24.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, December 25.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, December 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, December 27.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, December 28.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
ROYAL INSTITUTION.—3 P.M. Prof. A. W. Rücker: Electricity. (To a Juvenile Auditory.)

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An Entire Page	5 5 0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post Offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.